

REQUEST FOR BIDS

MEASURE Z FIRE HYDRANT REPLACEMENT PROJECT IN GARBERVILLE AREA

RFB NO. 2017-01

BID SUBMITTAL DEADLINE: 2:00 P.M., January 22, 2018

J. SHORT



GARBERVILLE SANITARY DISTRICT
P.O. BOX 211 919 REDWOOD DRIVE
GARBERVILLE, CA 95542

(707) 923-9566

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**REQUEST FOR BIDS FOR MEASURE Z FIRE HYDRANT REPLACEMENT
RFB NO. 2017-01**

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SECTION 1
NOTICE INVITING BIDS
INSTRUCTIONS TO BIDDERS

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**REQUEST FOR BIDS FOR MEASURE Z FIRE HYDRANT REPLACEMENT
RFB NO. 2017-01**

NOTICE INVITING BIDS

1. The Garberville Sanitary District (Owner), will accept sealed bids for its MEASURE Z FIRE HYDRANT REPLACEMENT (Project), by or before **JANUARY 22, 2018 at 2:00 p.m.**, at its District Office, located at 919 Redwood Drive, Garberville, California 95542, at which time the bids will be publicly opened and read aloud. Sealed bids can be mailed to P.O. Box 211, Garberville, CA 95542 but the bidder is responsible for making sure that the mailed bid is received by the District prior to the deadline. The sealed bid must be marked on the outside of the envelope, "**2017 Measure Z Fire Hydrant Replacement Project**". No faxed or emailed bids will be accepted. Any bid received after the deadline will be returned unopened. Owner reserves the right to reject any and all bids and to waive any non-substantive irregularities. Bid will be awarded within Sixty (60) days from the bid opening date. This project will be funded with **MEASURE Z FUNDS FROM THE COUNTY SALES USE TAX**.
2. The Issuing Office for the Bidding Documents is: Garberville Sanitary District, located at 919 Redwood Drive, Garberville, California, 95542. Direct questions to Ralph Emerson, General Manager, Phone: 707-923-9566, or Email: remerson@garbervillesd.org. Prospective Bidders may examine the Bidding Documents at the Issuing Office on Mondays through Fridays between the hours of 8:00AM – 5:00PM, and may obtain copies of the Bidding Documents from the Issuing Office electronically on the Garberville Sanitary District's web site at: www.garbervillesd.org. The plans, specifications, and contract documents for the Project (Contract Documents) may be obtained from the OWNER for One Hundred One Hundred Twenty-Five Dollars + Ten Dollars mailing for half-size plans (\$125 +\$10 mailing for half-size plans).
3. This Project requires a valid California contractor's license for the following classification(s):
A. General Engineering.
4. Each bid must be submitted using the Bid Proposal Form, and must include all additional forms referenced herein. Each Bid Proposal must be accompanied by bid security of ten percent (10%) of the maximum bid amount, in the form of a cashier's or certified check made payable to Owner, or a bid bond executed by a surety licensed to do business in the State of California on the Bid Bond form included with the Contract Documents. The bid security shall guarantee that upon award of the bid, the bidder shall execute the contract and submit payment and performance bonds and insurance certificates as required by the Contract Documents within ten (10) days following notice of award of the Contract.
5. Performance and payment bonds will be required of the successful bidder.
6. Additional information is provided in the Instructions for Bidders, which should be carefully reviewed by all bidders prior to submitting a Bid Proposal.
7. California Prevailing Wage Rates apply to this project. This Contract is subject to a labor compliance program pursuant to subdivision (b) of Section 1771.5 of the Labor Code.

Approved for Circulation by:

Ralph Emerson, General Manager

REQUEST FOR BIDS FOR MEASURE Z FIRE HYDRANT REPLACEMENT
RFB NO. 2017-01

General Instructions to Bidders

1. The Garberville Sanitary District is soliciting for informal bid on a hydrant replacement project within the District. Each bidder is to submit with the bid:
 - A. Completed bid form with required signatures
 - B. Evidence of Bidder's authority to do business in the State of California
 - C. Evidence of Bidder's California Class "A" Contractors License
 - D. List of Subcontractors (if none, indicate so on the form)
 - E. Non-Collusion Affidavit form
 - F. Bid Bond

Within 10 calendar days of the bid opening, the successful bidder shall submit the following items for review by the District prior to award of the project:

- A. Proof of insurance
- B. Certification of drug-free workplace
- C. Performance Bond
- D. Payment Bond

No bid may be withdrawn for a period of sixty (60) days after the date set for the opening for bids except as provided pursuant to Public Contract Code Sections 5100 et seq.

2. The 2017 Measure Z Fire Hydrant Replacement Project generally consists of replacement of eight hydrants, some needing isolation valves added, at the locations specified herein. Each location is shown with a list of the work to be completed at each location.
3. The Bidder shall review and be familiar with the Request for Bid documents and technical specifications. Failure to review the specifications will not relieve the successful Bidder of an obligation to furnish all products, services and labor necessary to carry out the provisions of the contract. It is the responsibility of each Bidder before submitting a Bid to:
 - A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
 - B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
 - C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
 - D. promptly give District written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by District is acceptable to Bidder;
 - E. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
 - F. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.

The District shall not be liable for any costs incurred by a Bidder in preparing the Bid. The District may solicit information from any available source concerning any aspect of this Bid and seek and review any other information deemed pertinent to the evaluation process

Each Bid must be signed by the bidder's authorized representative. Bids submitted by partnerships must be signed in the partnership name by a general partner with authority to bind the partnership. Bids submitted by corporations must be signed with the legal name of the corporation, followed by the signature and designation of the president, secretary, or other person authorized to bind the corporation.

4. Technical or bidding inquiries regarding this Request for Bid must be submitted in writing to Ralph Emerson, District General Manager, via email at remerson@garbervillesd.org or fax (707)923-3130. General inquiries can be made verbally to Mr. Emerson at (707)923-9566.

5. Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.

6. This project is a public works project funded with **MEASURE Z FUNDS FROM THE COUNTY SALES USE TAX**. Prevailing wages apply to this project. The contractor shall supply certified prevailing wage reports to the District with each pay request. Payment will not be made until the supplied certified prevailing wage reports are approved by the District.

7. The Bidder shall not assign or transfer any interest in the contract or subcontract any part of the contract without prior written approval from the District. Materials supplies are acceptable. Pursuant to Public Contract Code Section 4104 each Bid Proposal must include the name and location of the place of business of each subcontractor who shall perform work or service or fabricate or install work for the prime contractor in excess of one-half of one percent ($\frac{1}{2}$ of 1%) of the bid price, using the Subcontractor List form included with the Contract Documents. Any subcontractor who is ineligible to perform work on a public works project pursuant to Labor Code Sections 1777.1 or 1777.7 is prohibited from performing work on this Project.

8. The substitution of appropriate securities in lieu of retention amounts from progress payments is permitted in accordance with Public Contract Code Section 22300.

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SECTION 2
BID FORMS

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BID PROPOSAL

RFB NO. 2017-01 MEASURE Z FIRE HYDRANT REPLACEMENT PROJECT

_____ (Bidder) hereby submits this Bid Proposal to the Garberville Sanitary District (Owner) for the above-referenced project (Project) in response to the Notice Inviting Bids and in accordance with the Contract Documents referenced therein.

- Base Bid and Bid Schedule.** Bidder proposes to perform and fully complete the Work for the Project as specified in the Contract Documents, within the time required for full completion of the Work, for the following price:

Bid Schedule:

BID ITEM NO.	BID ITEM TITLE	UNITS OF MEASURE	QTY	UNIT PRICE	AMOUNT
1	LOCATION 1 – SPROWEL CR & RIVERVIEW REPLACE HYDRANT & ASSOCIATED WORK	Lump Sum	1		
2	LOCATION 2 – REDWOOD & HUMBOLDT REDWOODS INN REPLACE HYDRANT & ASSOCIATED WORK	Lump Sum	1		
3	LOCATION 3 – ALDERPOINT @ TANK DRIVEWAY REPLACE HYDRANT & ASSOCIATED WORK	Lump Sum	1		
4	LOCATION 4 – SPROWEL CR @ BAKER LANE REPLACE HYDRANT & ASSOCIATED WORK	Lump Sum	1		
5	LOCATION 5 – REDWOOD @ CALICO'S REPLACE HYDRANT & ASSOCIATED WORK	Lump Sum	1		
6	LOCATION 6 – LOCUST @ FIRE DEPARTMENT REPLACE HYDRANT & ASSOCIATED WORK	Lump Sum	1		
7	LOCATION 7 – REDWOOD @ 101 OC ON RAMP REPLACE HYDRANT & ASSOCIATED WORK	Lump Sum	1		
8	LOCATION 8 – 1221 WALLEN RD REPLACE HYDRANT & ASSOCIATED WORK	Lump Sum	1		
	Total Bid				\$

TOTAL AMOUNT OF BASE BID (in words and numbers):

_____ Dollars

(\$ _____).

It is further agreed that:

- (a) In case of a discrepancy between words and figures, the words shall prevail, and in the case of a discrepancy between unit prices and totals, the unit price shall prevail.
- (b) The OWNER reserves the right to eliminate any section (OR BID ITEM) of this proposal from the contract without claim of the CONTRACTOR for profits lost.
- (c) No verbal agreement of conversation with any officer, agent, or employee of the OWNER, either before or after the execution of the Agreement, shall affect or modify any of the terms or obligations of this proposal.
- (d) The OWNER will not be responsible for any errors or omission on the part of the undersigned in making up his/her BID, nor will the BIDDER be released on account of errors.
- (e) The undersigned BIDDER is properly licensed in accordance with the State of California Act providing for the registration of Contractors.
- (f) If the proposal shall be accepted and the undersigned shall fail to contract as aforesaid and to deliver the 100% Performance and Payment Bonds with surety satisfactory to the OWNER, within TEN (10) CALENDAR DAYS after the BIDDER has received notice from the OWNER that the contract is ready for signature, the OWNER may, at its option, determine that the BIDDER has abandoned the contract, and thereafter this proposal and the acceptance thereof shall be null and void, and the forfeiture provisions relating to such bid security shall be the property of the OWNER.
- (g) The Undersigned BIDDER certifies that he/she has confirmed that the proposed form of contract, and the plans and specifications are complete.

2. **Addenda.** Bidder acknowledges receipt of the following addenda:

Addendum:	Date Received:	Addendum:	Date Received:
#01	_____	#03	_____
#02	_____	#04	_____

3. **Bidder's Warranties.** By signing and submitting this Bid Proposal, Bidder warrants the following:

- 3.1 Bidder has thoroughly examined the Contract Documents, and represents that, to the best of Bidder's knowledge there are no errors, omissions, or discrepancies in the Contract Documents subject to the limitations of Public Contract Code Section 1104.
- 3.2 Bidder has had the opportunity to examine the Worksite and local conditions at the Project location.
- 3.3 Bidder is fully qualified to perform the Work.
- 3.4 Bid has carefully reviewed this Bid Proposal and is solely responsible for any errors or omissions contained in its completed Bid.

4. **Award of Contract.** By signing and submitting this Bid Proposal, Bidder agrees that if Bidder is awarded the Contract for the Project, that within ten (10) days following issuance of the notice of award to Bidder, Bidder shall:

- 4.1 Enter into a Contract with Owner in accordance with the terms of this Bid Proposal, by signing and submitting to Owner the Contract form included with the Contract Documents; and

- 4.2 Submit to Owner a payment bond and a performance bond, each for 100% of the Contract Price, using the bond forms provided and in accordance with the requirements of the Contract Documents; and
- 4.3 Submit to Owner the insurance certificate(s) and endorsement(s) as required by the Contract Documents.

This Bid Proposal is hereby submitted on _____, 20__:

_____ Signature	_____ Date
_____ Name & Title	_____ Company Name
_____ License # and Classification	_____ Mailing Address
_____ Office Phone Number	_____ Physical Address
_____ Fax Number	_____ City, State Zip
_____ Email address	

SEAL (if BID is by a corporation)

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

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

OWNER (*Name and Address*):

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND

Bond Number:

Date:

Penal sum _____

\$ _____

(Words)

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)

(Seal)

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By:

Signature

By:

Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest:

Signature

Attest:

Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

AFFIDAVIT OF NON-COLLUSION BY CONTRACTOR

State of California)	
County of _____)	ss.

_____, being first duly sworn, deposes and says that he/she is
_____, of _____ (Contractor)

who submits herewith to the Garberville Sanitary District a proposal;

That all statements of fact in such proposal are true;

That such proposal was not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation;

That such proposal is genuine and not collusive or sham;

That said bidder has not, directly or indirectly by agreement, communication or conference with anyone attempted to induce action prejudicial to the interest of the Garberville Sanitary District, or of any other bidder or anyone else interested in the proposed contract; and further

That prior to the public opening and reading of proposals, said bidder:

- a. Did not directly or indirectly, induce or solicit anyone else to submit a false or sham proposal;
- b. Did not directly or indirectly, collude, conspire, connive or agree with anyone else that said bidder or anyone else would submit a false or sham proposal, or that anyone should refrain from bidding or withdraw his proposal;
- c. Did not, in any manner, directly or indirectly seek by agreement, communication or conference with anyone to raise or fix the proposal price of said bidder or of anyone else, or to raise or fix any overhead, profit or cost element of his proposal price, or of that of anyone else;
- d. Did not, directly or indirectly, submit his proposal price or any breakdown thereof, or the contents thereof, or divulge information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, or to any individual or group of individuals, except the Garberville Sanitary District, or to any person or persons who have a partnership or other financial interest with said bidder in his business.

I certify under penalty of perjury that the above information is correct:

SIGNATURE

DATE

PRINTED NAME

TITLE

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SECTION 3
CONTRACT FORMS

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CONTRACT

(SAMPLE)

This public works contract (Contract) is entered into by and between the Garberville Sanitary District (Owner) and Contractor's Business Name (Contractor) for work on the Measure Z Hydrant Replacement Project (Project).

{Note: Fields that will be completed upon award of the Contract are indicated in italics, brackets and highlighting.}

The parties agree as follows:

1. **Award of Contract.** In response to the Notice Inviting Bids, Contractor has submitted a Bid Proposal to perform work on the Project, and on *Date Board Approved Award*, Owner authorized award of this Contract to Contractor for the amount of Contractor's bid.
2. **Contract Documents.** The Contract Documents are comprised of the Notice Inviting Bids; the Instructions to Bidders; addenda, if any; the Bid Proposal, and attachments thereto; the Contract; the payment and performance bonds; the General Conditions; the Supplemental General Conditions; the Design Specifications, Volumes 1-4; Change Orders, if any; and the completed Job Classifications and Wage form.
3. **Contractor's Services.** Contractor agrees to perform all of the Work required for the Project, as specified in the Contract Documents, all of which are fully incorporated herein. Contractor shall provide, furnish, and supply all things necessary and incidental for the timely performance and completion of the Work, including, but not limited to, provision of all necessary labor, materials, equipment, transportation, and utilities, unless otherwise specified in the Contract Documents. Contractor also agrees to use its best efforts to complete the Work in a professional and expeditious manner and to meet or exceed the performance standards required by the Contract Documents.
4. **Payment.** As full and complete compensation for Contractor's timely performance and completion of the Work in strict accordance with the terms and conditions of the Contract Documents, District shall pay Contractor

Contract Price in Words

Dollars (\$ _____ *Contract Price in numbers*) (the "Contract Price"), in accordance with the payment provisions set forth in the General Conditions.

5. **Time for Completion.** Contractor shall fully complete the Work for the Project within **90 calendar days** of the date indicated on the notice to proceed.
6. **Liquidated Damages.** If Contractor fails to complete the Work within the Contract Time, Owner may assess liquidated damages in the amount of One Thousand dollars (\$1,000) for each calendar day of unexcused delay in completion, and the Contract Price shall be reduced accordingly.
7. **Labor Code Compliance.** This public works Contract is subject to all applicable requirements of Chapter 1 of Part 7 of Division 2 of the Labor Code, including, but limited to, requirements pertaining to wages, working hours and workers' compensation insurance. Contractor is also required to participate in the electronic filing program through the state's Department of Industrial Relations.

8. **Workers' Compensation Certification.** Pursuant to Labor Code Section 1861, by signing this Contract, Contractor certifies as follows: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work on this Contract."
9. **Prevailing Wages.** This Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. Copies of these prevailing rates are available online at <http://www.dir.ca.gov/DLSR>.
10. **Notice.** Any notice, billing, or payment required by the Contract Documents must be made in writing, and sent to the other party by personal delivery, U.S. Mail, a reliable overnight delivery service, facsimile, or by e-mail as a pdf (or comparable) file. Notice is deemed effective upon delivery unless otherwise specified. Notice for each party shall be given as follows:

	Owner	Contractor
Name:	Garberville Sanitary District	
Address:	919 Redwood Drive (P.O. Box 211)	
City/State/Zip:	Garberville, CA 95542	
Phone:	(707) 923-9566	
Fax:	(707) 923-3130	
Cell Phone:	(209) 743-0125	
Attn:	Ralph Emerson	
Email:	remerson@garbervillesd.org	
Copy to:	jmshort@garbervillesd.org	

11. **General Provisions.**
- 11.1 **Assignment and Successors.** Contractor may not assign its rights or obligations under this Contract, in part or in whole, without Owner's written consent. This Contract is binding on Contractor's successors and permitted assigns.
- 11.2 **Third Party Beneficiaries.** There are no intended third party beneficiaries to this Contract except as expressly provided in the General Conditions or Supplemental General Conditions.
- 11.3 **Governing Law and Venue.** This Contract shall be governed by California law and venue shall be in the Superior Court of the County in which the Project is located, and no other place.
- 11.4 **Amendment.** No amendment or modification of this Contract shall be binding unless it is in a writing duly authorized and signed by the parties to this Contract.
- 11.5 **Integration; Severability.** This Contract and the Contract Documents incorporated herein, including authorized amendments or change orders thereto, constitute the final, complete, and exclusive terms of the agreement between Owner and Contractor. If any provision of this Contract, or portion thereof, is determined to be illegal, invalid, or unenforceable, the remaining provisions of the Contract shall remain in full force and effect.

11.6 **Authorization.** Each individual signing below warrants that he or she is authorized to do so by the party that he or she represents, and that this Contract is legally binding on that party.

The parties agree to this Contract as witnessed by the signatures below:

OWNER:

Garberville Sanitary District

s/

Signature
Name, Chair of the Board of Directors

Date Signed

Attested:

s/

Clerk of the Board of Directors

CONTRACTOR:

Contractor's Business Name

s/

Signature
Typed Name and Title

Date Signed
Contractor's License Number(s):

Contractor's License Exp. Date:

Seal of Corporation

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

CONTRACTOR/BIDDER FIRM NAME	FEDERAL ID NUMBER
BY (Authorized Signature)	DATE EXECUTED
PRINTED NAME AND TITLE OF PERSON SIGNING	TELEPHONE NUMBER (Include Area Code)
TITLE	
CONTRACTOR/BIDDER FIRM'S MAILING ADDRESS	

The contractor or grant recipient named above hereby certifies with Government Code Section 8355 in matters relating to providing a drug-free workplace. The above named contractor or grant recipient will:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a).
2. Establish a Drug-Free Awareness Program as required by Government Code 8355(b), to inform employees about all of the following:
 - (a) The dangers of drug abuse in the workplace,
 - (b) The person's or organization's policy in maintaining a drug-free workplace,
 - (c) Any available counseling, rehabilitation and employee assistance programs, and
 - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Provide as required by Government Code 8355(c), that everyone who works on the proposed contract or grant:
 - (a) Will receive a copy of the company's drug-free policy statement, and
 - (b) Will agree to abide by the terms of the company's statement as a condition of employment on the contract or grant.
4. At the election of the contractor or grantee, from and after the "Date Executed" and until _____^(DATE) (NOT TO EXCEED 36 MONTHS), the state will regard this certificate as valid for all contracts or grants entered into between the contractor or grantee and this state agency without requiring the contractor or grantee to provide a new individual certificate for each contract or grant. If the contractor or grantee elects to fill in the blank date, then the terms and conditions of this certificate shall have the same force, meaning, effect and enforceability as if a certificate were separately, specifically, and individually provided for each contract or grant between the contractor or grantee and this state agency.

PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence,

to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims

for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

_____ *(seal)*

Contractor's Name and Corporate Seal

_____ *(seal)*

Surety's Name and Corporate Seal

By: _____

Signature

By: _____

Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____

Signature

Attest: _____

Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
 - 16.1 **Claim:** A written statement by the Claimant including at a minimum:
 1. The name of the Claimant;
 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 4. A brief description of the labor, materials, or equipment furnished;
 5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 7. The total amount of previous payments received by the Claimant; and
 - 16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
 - 16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
 - 16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
18. Modifications to this Bond are as follows:
 8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

SECTION 4
GENERAL CONDITIONS

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REQUEST FOR BIDS FOR MEASURE Z FIRE HYDRANT REPLACEMENT

RFB NO. 2017-01

General Conditions of Contract

Throughout these contract documents, all references to “days” in intended to be calendar days.

SIGNING OF AGREEMENT. When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within ten calendar days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten calendar days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder.

CONTRACT TERMS. The Contract Term shall be **90 calendar days** from the date of the Notice to Proceed. Liquidated damages will be assessed at a rate of **\$1,000 per calendar day** once the contract term has expired if the work is not substantially complete.

INSURANCE. No later than ten (10) calendar days following issuance of the notice of award, Contractor shall be required to procure and provide proof of the insurance coverage required by this section in the form of certificates and endorsements. The required insurance must cover the activities of Contractor and its Subcontractors relating to or arising from the performance of the Work, and must remain in full force and effect at all times during the period covered by the Contract until the date of recordation of the notice of completion. All required insurance must be issued by a company licensed to do business in the State of California, and each such insurer must have an A.M. Best’s financial strength rating of “A” or better and a financial size rating of “VIII” or better. If Contractor fails to provide any of the required coverage in full compliance with the requirements of the Contract Documents, Owner may, at its sole discretion, purchase such coverage at Contractor’s expense and deduct the cost from payments due to Contractor, or terminate the Contract for default.

The following insurance policies and limits are required for this Contract unless otherwise specified in the Supplemental General Conditions:

Commercial General Liability Insurance (CGL): The CGL policy shall be issued on an occurrence basis, written on a comprehensive general liability form, and shall include coverage for liability arising from Contractor’s or its Subcontractor’s acts or omissions in the performance of the Work, including contractor’s protected coverage, blanket contractual, completed operations, vehicle coverage and employer’s non-ownership liability coverage, with limits of at least two million dollars (\$2,000,000.00) per occurrence. The CGL policy must name Owner as an additional insured for all liability arising out of the operations by or on behalf of the named insured, and must protect Owner, its officers, employees, and agents against any and all liability for personal injury, death, or property damage or destruction arising directly or indirectly in the performance of the Contract. The CGL coverage may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by excess or umbrella policies, provided each such policy complies with the requirements set forth herein. Additionally, the state, its officers, agents, employees, and servants must be named as additional insured on all certificates, in accordance with the state and federal requirements section of these specifications.

Builder's Risk Insurance: The Builder's Risk Insurance policy shall be issued on occurrence basis, for all-risk coverage on a one hundred percent (100%) completed value basis on the insurable portion of the Project for the benefit of Owner.

Workers' Compensation Insurance and Employer's Liability: The policy must comply with the requirements of the California Workers' Compensation Insurance and Safety Act, with of at least one million dollars (\$1,000,000.00). If Contractor is self-insured, Contractor shall provide its Certificate of Permission to Self-Insure, duly authorized by the Department of Industrial Relations.

Each certificate of insurance must state that the coverage afforded by the policy or policies shall not be reduced, cancelled, or allowed to expire without at least thirty (30) days written notice to Owner, unless due to non-payment of premiums, in which case ten (10) days written notice shall be made to Owner.

Each required policy must include an endorsement providing that the carrier agrees to waive any right of subrogation it may have against Owner.

The CGL Policy and the Builder's Risk Policy must include the following specific endorsements:

The inclusion of more than one insured shall not operate to impair the rights of one insured against another, and the coverages afforded shall apply as though separate policies have been issued to each insured.

The insurance provided is primary and no insurance held or owned by Owner shall be called upon to contribute to a loss.

This policy does not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.

Contractor shall ensure that each Subcontractor is required to maintain the same insurance policies as set forth herein, with respect to its operations, including those requirements related to the additional insureds and waiver of subrogation.

Each certificate must include Owner and Humboldt County as additionally insured.

INDEMNIFICATION. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

PERMITS. Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the

Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work. GSD HOLDS AN ANNUAL ENCROACHMENT PERMIT FROM HUMBOLDT COUNTY FOR REPAIR AND MAINTENANCE WORK WITHIN THE COUNTY'S RIGHT OF WAYS. IT IS INCLUDED IN THESE CONTRACT DOCUMENTS IN APPENDIX A.

PREVAILING WAGES. Compliance with general prevailing wage determination made by the director of industrial relations pursuant to California Labor Code for commercial building, highway, heavy construction, and dredging projects in Humboldt County, will be required. A copy of the determination of the prevailing wage shall be posted at the project site. The contractor shall provide certified payroll records in accordance with Section 1776 of the California Labor Code with each request for payment, or as requested by the engineer. The owner may assess a fine in accordance with Section 1776 (g) of the Labor Code if the contractor fails to provide such records within the time specified in the code.

Each worker performing Work under this Contract shall be paid at a rate not less than the prevailing wage as defined in Sections 1771 and 1774 of the Labor Code. The prevailing wage rates are available online at <http://www.dir.ca.gov/dlsr>. Contractor shall post a copy of the applicable prevailing rates at the Worksite.

Pursuant to Labor Code Section 1775, Contractor and any Subcontractor shall forfeit to Owner as a penalty up to fifty dollars (\$50.00) for each calendar day, or portion thereof, for each worker paid less than the applicable prevailing wage rate. Contractor shall also pay each worker the difference between the applicable prevailing wage rate and the amount actually paid to that worker.

PAYROLL RECORDS. Contractor shall comply with the provisions of Labor Code Sections 1776 and 1812, which are incorporated by reference herein.

Contractor and each Subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed in connection with the Work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

The information contained in the payroll record is true and correct.

The Contractor or Subcontractor has complied with the requirements of Labor Code Sections 1811, and 1815 for any Work performed by its employees on the Project.

A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request, to Owner, or to the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations, and as further provided by the Labor Code. Contractor is also required to participate in an electronic information submittal program as described on the State's Department of Industrial Relations website.

Upon notice of noncompliance with Labor Code Section 1776, Contractor or Subcontractor shall have ten (10) days in which to comply with requirements of this section. If Contractor or Subcontractor fails to do so within the ten (10) day period, Contractor or Subcontractor shall forfeit a penalty of twenty-five dollars (\$25.00) per day, or portion thereof, for each worker for

whom compliance is required, until strict compliance is achieved. Upon request by the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

Contractor shall comply with all electronic filing requirements for payroll records as required by the contract documents. This includes registration and enrollment in the Dept. of Labor web application as described in the contract documents.

PROGRESS PAYMENTS. Following the last day of each month, Contractor shall submit to Owner for approval, a monthly application for payment for Work performed during the preceding month based on the estimated value of the Work performed during that preceding month.

Each application for payment shall be itemized to include labor, materials, and equipment incorporated into the Work, and materials and equipment delivered to the Worksite, as well as authorized and approved Change Orders.

Owner shall pay the undisputed amount due, as certified by Engineer, within Thirty (30) days after Contractor has submitted a complete and accurate payment application. 5% retention will be held from each payment until the final project walk-through is accomplished, the punch list items are completed, and will be released as part of the final payment processing.

FINAL PAYMENT. Final Completion, acceptance of the Work by Owner, and recordation of the Notice of Completion, and any release required by the Contract Documents are conditions precedent to Final Payment and release of undisputed retention, as set forth above. Corrections to previous progress payments may also be included in the Final Payment. The date of Final Payment is deemed to be effective on the date that Owner acts to release retention as final payment to Contractor, or otherwise provides written notice to Contractor of Final Payment. If the amount due from Contractor to Owner exceeds the amount of Final Payment, Owner retains the right to recover the balance from Contractor or its sureties. **IN ACCORDANCE WITH THE MEASURE Z MOU WITH HUMBOLDT COUNTY, FINAL PAYMENT MUST BE SUBMITTED TO THE DISTRICT BEFORE JUNE 30, 2018.**

CONTRACT CHANGE ORDERS.

Amending and Supplementing Contract Documents

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. Change Orders:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. Work Change Directives: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a

subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. Field Orders: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

Owner-Authorized Changes in the Work

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

Unauthorized Changes in the Work

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented.

Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of these paragraphs.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved; or
2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit); or
3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work plus a Contractor's fee for overhead and profit.

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SECTION 5
TECHNICAL SPECIFICATIONS

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**REQUEST FOR BIDS FOR MEASURE Z FIRE HYDRANT REPLACEMENT
RFB NO. 2017-01**

Technical Specifications

Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

All materials and equipment incorporated into the Work shall be of good quality and new. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by District, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier.

SPECIFICATIONS USED ON PROJECT.

The following specifications are incorporated into these contract documents and are to be used for all items for which more specific information is not included in this REQUEST FOR BIDS.

- A. STANDARD SPECIFICATIONS – 2010 version
STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
PUBLISHED BY: DEPARTMENT OF TRANSPORTATION
- B. HUMBOLDT COMMUNITY SERVICES DISTRICT WATER AND SEWER DESIGN AND
CONSTRUCTION STANDARDS, SECOND REVISION, APPROVED BY THE HCSD
BOARD OF DIRECTORS AT THEIR REGULAR MEETING OF SEPTEMBER 13, 2016

WATER SHUT-OFFS AND WORK HOURS.

The operation and maintenance of the Owner's drinking water system is under the legal responsibility of the Owner's designated Legally Responsible Operator (LRO). The Contractor shall carefully coordinate its work plan for all connections to and/or disturbance of existing water pipes, and especially disinfection in preparation for placing new facilities into operation, with the Owner's LRO for the drinking water system. Any required water main shutdowns must be coordinated with the Owner's LRO a minimum of seventy-two (72) hours in advance. The Owner's designated LRO for the water system is **RALPH EMERSON (209) 743-0125**

Contractor shall be responsible for noticing each water customer that is impacted by shut-offs by delivering to the customer's front door a written notice of the date of the shut-off, the time for the shut-off start and stop, and who to contact should a problem arise. The written notice must be provided to the customer at least 48 hours prior to the start of the water shut-off.

Time Restrictions for Performing Work: Monday – Friday 8:00AM – 5:00PM. Prior written approval from the Owner must be obtained to perform work outside of these time restrictions.

SUBMITTALS.

Contractor shall submit Shop Drawings and Samples to Owner for review and approval. Make all submittals far enough in advance of scheduled dates of installation to provide all required time for reviews, for securing necessary approvals, for possible revision and re-submittal, and for placing orders and securing delivery.

SAFETY AND PROTECTION. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.

Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

TESTING AND INSPECTION.

Contractor shall schedule all tests required by the Contract Documents in time to avoid any delay to the progress of the Work. Contractor shall provide 48 hours or 2 working days (whichever is longer) notice to the Owner for testing and inspections of work completed under this contract. Owner shall bear the initial cost of testing to be performed by independent testing consultants retained by Owner. However, Contractor shall be responsible for the costs of any subsequent tests that are required to substantiate compliance with the Contract Documents, and any associated remediation costs. In addition, if any portion of the Work that is subject to testing is covered or concealed by Contractor prior to testing, Contractor shall bear the cost of making that portion of the Work available for the testing required by the Contract Documents, and any associated repair or remediation costs.

All materials, equipment, and workmanship used in the Work shall be subject to inspection by Owner's Inspector at all times and locations during construction and/or fabrication. All manufacturers' application or installation instructions shall be provided to the Inspector at least ten (10) days prior to the first such application. Contractor shall, at all times, make the Work available for inspection. Any Work that fails to comply with the requirements of the Contract Documents shall be promptly repaired, replaced, or corrected by Contractor, at Contractor's sole expense. In addition, if any portion of the Work is improperly covered or concealed by Contractor prior to inspection, Contractor shall bear the cost of making that portion of the Work available for inspection, and any associated repair or remediation costs.

TRAFFIC CONTROL.

Contractor shall provide traffic control in accordance with the encroachment permit in appendix A. Contractor shall submit the proposed traffic control plan for each location 7 days prior to implementing the plan or doing any work at each location site – this includes potholing. Payment for traffic control shall be included in the fixed lump-sum bid price for each hydrant location bid item, and shall be considered as full compensation for all labor, equipment, and materials, and performance of all work required to provide traffic control required for the work, including but not limited to preparation of an approved traffic control plan through submittal to the Owner; coordination with Garberville Fire Protection District, and Humboldt County Sheriff and Public Works Departments; furnishing, placing, and maintaining traffic signs, safety warning devices, and delineators; providing all required personnel and flaggers to control traffic; advising all residents and businesses that will be affected by implementation of the traffic control plan; and maintaining traffic safety at all times in accordance with the approved traffic control plan ; as shown on the Drawings, as specified in these Special Provisions, and as directed by the Engineer.

HYDRANT

At the location(s) shown on the plans, the Contractor shall provide and install a fire hydrant and lateral assembly. Fire hydrants shall be “WET BARREL” Clow 2546-5b Fire Hydrants.

MOBILIZATION/DEMOBILIZATION: Payment for mobilization and demobilization shall be included in the fixed lump-sum bid price for each hydrant location bid item, and shall be considered as full compensation for furnishing all labor, equipment, and materials necessary to establish and maintain a physical presence at the project site for the duration of the work, including but not limited to: obtaining bonding and insurance, obtaining any permits not provided by the owner, attendance at periodic project meetings, compliance with applicable project reporting, invoicing and progress payment processes, preparing the final construction management plan, mobilization, temporary shelters, temporary office space and utilities for construction management personnel, costs associated with acquiring additional work and staging areas as necessary, preparation of submittals, cleanup, and demobilization.

MEASUREMENT AND PAYMENT

BID ITEMS 1 – 8: Payment for replacement of fire hydrants shall be paid for on a fixed lump-sum basis and such price shall be considered as full compensation for furnishing all material, supplies, equipment, tools, transportation, and facilities, including mobilization/demobilization, and performing all labor and services necessary for, required in connection with, or properly incidental to furnishing and installing new fire hydrants with isolation valves and appurtenant waterline installation, including buried and above-grade installation; all fittings, valves, and valve boxes; potholing, excavation, shoring, and bracing; control of water; tie-in connection to existing valves, fittings and pipe; installation of restrained joints, thrust blocking, and trench dams where required; proper disposal of trench spoils and dewatering products; control of grade; installation of temporary fittings, pipe supports, bulkheads, and appurtenances as required for testing or future connections; placement and compaction of pipe bedding and cover material; installation of pipeline tracer wire and warning tape where required; placement and compaction of backfill; installation of permanent asphalt or ground cover as indicated; flushing and testing; disinfection; proper disposal of spoils and testing/disinfection water; and cleanup and restoration of areas affected during construction, all as indicated in these bid documents and as directed by the Owner.

Bid Item 1. REPLACE FIRE HYDRANT AT SPROWEL CREEK RD & RIVERVIEW

In addition to the summary above, the hydrant replacement at this location generally requires removing the existing hydrant and valve, capping the connection to the existing waterline, install a new hydrant at the same location, install a new 6" gate valve, new 6" waterline from the gate valve to the existing 8" waterline on the north side of Sprowel Creek Road, install a 6" saddle tap on the existing waterline, and provide all the fittings and waterline to make all necessary connections.

Bid Item 2. REPLACE FIRE HYDRANT AT REDWOOD DR @ HUMBOLDT REDWOODS INN

In addition to the summary above, the hydrant replacement at this location will require a significant amount of potholing to find the existing waterline behind the sidewalk, in the sidewalk, and in Redwood Drive. It generally requires removing the existing hydrant and valve, install a new hydrant at the same location, install a new 6" gate valve, new 8" waterline from the gate valve to the existing waterline in Redwood Drive, provide a new custom fabricated connection at the terminus of the waterline in Redwood Drive, install new 6" waterline from the terminus of the waterline in Redwood Dr. to the existing waterline behind the sidewalk, install a new blind flange off the end of the connection, reconnect the existing water meter to the new 6' waterline, replace sidewalk concrete, and provide all the fittings and waterline to make all necessary connections.

Bid Item 3. REPLACE FIRE HYDRANT AT ALDERPOINT RD. @ TANK DRIVEWAY

In addition to the summary above, the hydrant replacement at this location generally requires connecting to the above ground ductile iron waterline in front of the watertank, install a 4x6 tee, install 6" ductile iron waterline to 3' underground, convert to 6" PVC waterline underground, run the waterline underground to the back of the fence panel, install a 6" gate valve, run the 6" waterline under the fence panel, and install a new fire hydrant at the front of the fence panel in the location staked by the Owner.

Bid Item 4. REPLACE FIRE HYDRANT AT SPROWEL CREEK RD @ BAKER LN.

In addition to the summary above, the hydrant replacement at this location generally requires removing the existing hydrant and valve, capping the connection to the existing waterline, install a new hydrant at the same location, install a new 6" gate valve, new 6" waterline from the gate valve to the existing 8" waterline on the north side of Sprowel Creek Road, install a 6" saddle tap on the existing waterline, and provide all the fittings and waterline to make all necessary connections.

Bid Item 5. REPLACE FIRE HYDRANT AT REDWOOD DR @ CALICO'S

In addition to the summary above, the hydrant replacement at this location generally requires removing the existing hydrant and valve, capping the connection to the existing waterline, install a 6" saddle tap on the existing waterline, install a new hydrant at the same location, install a new 6" gate valve, new waterline from the gate valve to the new saddle tap, remove the 3 existing meters and boxes, install 3 GSD supplied new meters in contractor supplied boxes, connect new meters to existing waterline, replace sidewalk panels around hydrant and meters, and provide all the fittings and waterline to make all necessary connections.

Bid Item 6. REPLACE FIRE HYDRANT AT LOCUST @ FIRE DEPARTMENT

In addition to the summary above, the hydrant replacement at this location generally requires removing the existing hydrant and waterline to mainline in Locust, install a new hydrant at the same location, install a new 4" gate valve, new waterline from the gate valve to the hydrant, and provide all the fittings and waterline to make all necessary connections.

Bid Item 7. REPLACE FIRE HYDRANT AT REDWOOD DR. @ HWY 101 OC/BEAR CREEK RD.

In addition to the summary above, the hydrant replacement at this location will require a significant amount of potholing to find the existing waterline in Redwood Dr. and in Bear Canyon Road. It generally requires removing the existing hydrant and valve, capping the connection to the existing waterline, install a new hydrant at the same location, install a new 6" gate valve, new waterline from the gate valve to the existing 8" waterline in Redwood Drive, install a 6" saddle tap on the existing waterline, and provide all the fittings and waterline to make all necessary connections.

Bid Item 8. REPLACE FIRE HYDRANT AT WALLEN RD. @ 1221 WALLEN

In addition to the summary above, the hydrant replacement at this location generally requires removing the existing wharf hydrant, install a new hydrant at the same location, install a new 4" gate valve, new waterline from the gate valve to the hydrant, and provide all the fittings and waterline to make all necessary connections.

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SECTION 6
SAMPLE FORMS

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GARBERVILLE SANITARY DISTRICT

P.O. BOX 211 • GARBERVILLE, CA 95542 • (707) 923-9566

Sent by U.S. Mail and Email

May 29, 2013

CONTRACTOR NAME
ADDRESS
CITY, STATE, ZIP

Re: **NOTICE OF AWARD**
MEASURE Z HYDRANT REPLACEMENT PROJECT

Dear NAME:

The Garberville Sanitary District (Owner) is pleased to inform you that NAME. (Contractor) has been awarded the Contract for the above-referenced Project (Project), for the Contract Price of FILL IN Dollars (#####), pursuant to the Bid Proposal submitted on DECEMBER 21, 2017.

A copy of the Contract is enclosed. Contractor must execute two (2) copies of the enclosed Contract and return them to my attention, accompanied by the required Payment Bond, Performance Bond, and insurance certificates, no later than ten (10) days from the date of this Notice of Award.

Failure to return the executed Contract and required bonds and insurance documentation within the specified time could result in termination of the Contract and forfeiture of Contractor's bid security.

Please acknowledge receipt of this Notice of Award by signing the attached Acknowledgement of Notice of Award, as indicated, and faxing the Acknowledgement to my office at: (707) 923-3130. Please do not hesitate to contact me if you have any questions in this regard.

Sincerely,

Ralph Emerson
General Manager

Enclosure

ACKNOWLEDGEMENT OF NOTICE OF AWARD

On behalf of **NAME.** (Contractor), I acknowledge receipt of the Notice of Award for the MEASURE Z HYDRANT REPLACEMENT PROJECT:

s/ _____

Name: _____

Title: _____

Date: _____



GARBERVILLE SANITARY DISTRICT

P.O. BOX 211 • GARBERVILLE, CA 95542 • (707) 923-9566

Sent by U.S. Mail and Email

DATE, 2017

CONTRACTOR NAME
ADDRESS
CITY, STATE, ZIP

Re: **NOTICE TO PROCEED**
MEASURE Z HYDRANT REPLACEMENT PROJECT

Dear NAME:

NAME. (Contractor) is hereby notified to proceed with all Work for the above-referenced Project, pursuant to the Contract Documents. Contractor should commence the Work on or before **#DATE#** (Start Date), and must achieve Final Completion within **FILL IN (###) calendar days** from the Start Date.

A copy of the fully executed Contract is enclosed for your files.

Please acknowledge receipt of this Notice to Proceed by signing the attached Acknowledgement of Notice to Proceed, as indicated, and faxing the Acknowledgement to my office at: 707-923-3130 or via email at remerson@garbervillesd.org. Please do not hesitate to contact me if you have any questions.

Sincerely,

Ralph Emerson
General Manager

Enclosure

ACKNOWLEDGEMENT OF NOTICE TO PROCEED

On behalf of **NAME**, I acknowledge receipt of the Notice to Proceed for the MEASURE Z HYDRANT REPLACEMENT PROJECT:

s/ _____

Name: _____

Title: _____

Date: _____

CONTRACT CHANGE ORDER MEMORANDUM

CEM-4903 (REV 06/2006)

DATE
January 31, 2017

TO Garberville Sanitary District		Project Name. HYDRANT REPLACEMENT PROJECT
From CONTRACTOR NAME		Project No. #####
CCO No. CCO- ##		Contingency Balance (including this change):
CCO Amount (\$#####.##)	<input type="checkbox"/> Increase <input checked="" type="checkbox"/> Decrease	Engineering Change? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>
Supplemental Funds Provided NONE		Is this request in accordance with environmental documents? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

This Change Order Provides for (Use additional pages as needed):

The work defined by this change order consists of changes to {FILL IN AS NEEDED} and the attached drawings.

The total change in contract price for these items will be a net decrease of \$ ###.##.

calendar days are added to the contract time to accommodate the time necessary to implement the change.

CONCURRED BY:	
Construction Contractor: NAME	Date
Signature:	
Garberville Sanitary District	Date
General Manager	
Signature:	
	Date
Signature:	
FEDERAL PARTICIPATION	
<input checked="" type="checkbox"/> Participating <input type="checkbox"/> Participating in Part <input type="checkbox"/> None <input type="checkbox"/> Non-Participating(Maintenance) <input type="checkbox"/> Non-Participating	
FEDERAL SEGREGATION (If more than one funding source or P.I.P. type)	
<input type="checkbox"/> CCO Funded Per Contract <input checked="" type="checkbox"/> CCO Funded as Follows	
Funding Source	Percent
MEASURE Z	100%

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Recording Requested By:

When Recorded Mail To:

Name

Street
Address

City &
State

SPACE ABOVE THIS LINE FOR RECORDERS USE

NOTICE OF COMPLETION

(CA Civil Code §§ 8180-8190, 8100-8118, 9200-9208)

NOTICE IS HEREBY GIVEN THAT:

1. The undersigned is an owner of an interest of estate in the hereinafter described real property, the nature of which interest or estate is:
_____ (e.g. fee, leasehold, joint tenancy, etc.)
2. The full name and address of the undersigned owner or reputed owner and of all co-owners or reputed co-owners are:
Name _____ Street and No. _____ City _____ State _____

3. The name and address of the direct contractor for the work of improvement as a whole is:

4. This notice is given for (check one):
 Completion of the work of improvement as a whole.
 Completion of a contract for a particular portion of the work of improvement (per CA Civ. Code § 8186).
5. If this notice is given only of completion of a contract for a particular portion of the work of improvement (as provided in CA Civ. Code § 8186), the name and address of the direct contractor under that contract is:

6. The name and address of the construction lender, if any, is:

7. On the _____ day of _____, 20____, there was completed upon the herein described property a work of improvement as a whole (or a particular portion of the work of improvement as provided in CA Civ. Code § 8186) a general description of the work provided:

8. The real property herein referred to is situated in the City of _____, County of _____ State of California, and is described as follows:

9. The street address of said property is:

10. If this Notice of Completion is signed by the owner's successor in interest, the name and address of the successor's transferor is:

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: _____

By: _____

Signature of Owner of Owner's Authorized Agent

Print Name

VERIFICATION

I, _____, state: I am the _____ ("Owner", "President", "Authorized Agent", "Partner", etc.) of the Owner identified in the foregoing Notice of Completion. I have read said Notice of Completion and know the contents thereof; the same is true of my own knowledge.

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

Executed on _____, _____ (date), at _____ (City), _____ (State).

Signature of Owner or Owner's Authorized Agent

PROOF OF SERVICE DECLARATION

I, _____, declare that I served copies of the above **NOTICE OF COMPLETION**, (check appropriate box):

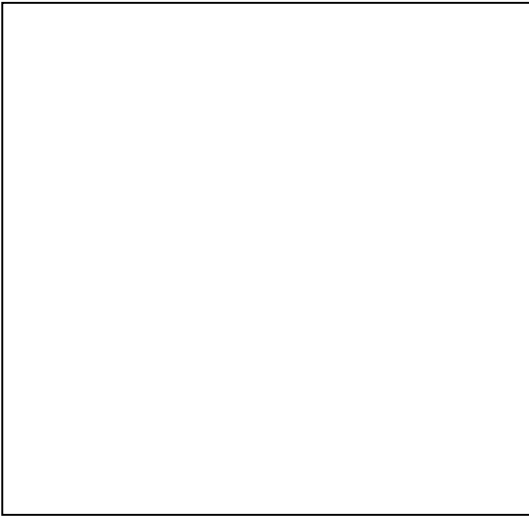
- a. By personally delivering copies to _____ (name(s) and title(s) of person served) at _____ (address), on _____ (date), at _____, _____m. (time)
- b. By Registered or Certified Mail, Express Mail or Overnight Delivery by an express service carrier, addressed to each of the parties at the address shown above on _____ (date).
- c. By leaving the notice and mailing a copy in the manner provided in § 415.20 of the California Code of Civil Procedure for service of Summons and Complaint in a Civil Action.

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

Executed on _____, _____ (date), at _____ (City), _____ (State).

(Signature of Person Making Service)

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.



STATE OF CALIFORNIA
COUNTY OF _____

On _____ (date), before me, _____, Notary Public (name and title of officer) personally appeared _____ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PURJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

**APPENDIX A
HUMBOLDT COUNTY
ENCROACHMENT PERMIT**

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DEPARTMENT OF PUBLIC WORKS
COUNTY OF HUMBOLDT

MAILING ADDRESS: 1106 SECOND STREET, EUREKA, CA 95501-0579
AREA CODE 707

ARCATA-EUREKA AIRPORT TERMINAL
McKINLEYVILLE
FAX 839-3596

PUBLIC WORKS BUILDING
SECOND & L ST., EUREKA
FAX 445-7409

CLARK COMPLEX at HARRIS & H ST.
3033 H Street, Room 17, EUREKA
FAX 445-7388

AVIATION 839-5401

ADMINISTRATION 445-7491
BUSINESS 445-7652
ENGINEERING 445-7377
FACILITY MAINTENANCE 445-7493

NATURAL RESOURCES 445-7741
NATURAL RESOURCES PLANNING 267-9540
PARKS 445-7651
ROADS & EQUIPMENT MAINTENANCE 445-7421

LAND USE 445-7205

Permittee: GARBERVILLE SANITARY DIST
Address: P.O. BOX 211
Garberville, CA 95542-0211

ANNUAL ENCROACHMENT PERMIT

Permit No.: 1825
Valid Dates: 01/01/2018 through 12/31/2018

Authorized Signatures - (not valid unless signed by County)

Permittee

County of Humboldt

By: 
(signature of authorized representative)



Name Printed: Ralph Emerson

By: Erin Cearley
Engineering Technician
3033 "H" Street, Room 17

Telephone: (707) 923-9566

Eureka, CA 95501
(707) 445-7205

In compliance with your request and subject to all the terms, conditions, and restrictions written below or printed as general or special provisions on any part of this form and/or attachments, permission is hereby granted *for the installation of new lateral service connections and to REPAIR or REPLACE* any EXISTING underground and/or overhead facilities located within the County highway or right of way as per Humboldt County Code Title IV, Division 1, Chapter 1, *and Sections 1463 and 1469 of the Streets and Highways Code of the State of California*, pertaining to the protection and control of County roads. All activities within the right of way under the terms of this Annual "Blanket" Encroachment Permit shall be performed in conformance with the requirements of said Chapter 1 and the specific requirements contained herein.

SPECIFIC REQUIREMENTS:

- (1) Any opening or excavation made under the authority of this Permit **SHALL NOT** exceed *four (4)* feet in width and/or *fifty (50)* feet in length.

(2) **NO EXCAVATION SHALL BE PERMITTED** on a new roadway or overlay section less than five (5) years old without written approval from the Director of Public Works. The following roads currently within the five-year period are listed in **Exhibit A**. This year's planned projects are highlighted and will be included upon completion of the construction. – **Exhibit A** will be mailed separately when available. Contact Public Works for options if the work area appears to be covered by the above requirement.

(3) *Any **new lateral service connection** work authorized under this Permit shall require notifying the Department of Public Works in writing **PRIOR** to commencement of work. Any **REPAIR** or **REPLACEMENT** of existing facilities **NOT EXCEEDING** the scope listed in (1) above shall not require written notification.*

*Any work **EXCEEDING** the scope listed in (1) above shall not be covered by this Permit. Main line extension projects and any other facility development impacting the County Road System shall require the PERMITTEE to submit a separate encroachment permit application along with appropriate construction plans unless waived by this office.*

(4) This Annual Encroachment Permit authorizes all routine maintenance of **permittee** owned facilities within County right of way.

(5) The Permittee shall provide, erect, and maintain all barriers, warning lights, traffic control devices, and other safeguards to protect the traveling public in accordance with Section 21400 of the California Vehicle Code and the latest edition of CalTrans Manual of Traffic Controls for Construction and Maintenance Work Zones during operations allowed under this permit.

(6) Permittee shall be responsible for all traffic control and safety at all work locations in a manner satisfactory to the Department of Public Works. Traffic control operations shall conform to **2014 California Manual on Uniform Traffic Control Devices for Streets and Highways** (FHWA's MUTCD 2009 Edition, as amended for use in California), Revision 2 April 7, 2017, or latest edition, and to the satisfaction of the Department of Public Works. Warning and flagging of motorists at work locations shall be conducted **AT ALL TIMES** by properly trained personnel. **NO COMPLETE ROAD CLOSURE** is authorized under this permit, unless authorized in writing by the Director of Public Works.

(7) Permittee shall be responsible for contacting all affected utilities prior to any excavation work. The Permittee shall notify U.S.A. - Underground Service Alert - at 1-800-227-2600 two (2) working days in advance. Failure to comply with the U.S.A. notification and excavation requirements pursuant to Section 7110 of the Business and Professions Code shall be cause for this permit to be revoked. **The County does not participate in U.S.A., therefore, Permittee shall be responsible for identification and notification regarding County substructures.** Contact Public Works - Roads Division (445-7421) for assistance locating County maintained facilities.

(8) Excavations shall be conducted in such a manner that not more than one traffic lane is closed at any one time. Excavation in the opposite traffic lane shall not begin until the traffic lane first excavated is backfilled, compacted, and surfaced or is made passable to traffic by temporary steel bridging. Trench shoring shall comply with Cal-OSHA requirements. NO open trenches within County right of way shall be allowed during non-working hours.

(9) Backfill material used in all trenches shall conform to Section 19 of CalTrans standard specifications, dated 2010. The attached **Exhibit B** Type I Trench detail shall be used for all roads. Backfill material, Class II AG base, shall be placed to the subgrade of the pavement in uniform layers and shall be brought up uniformly on all sides of the structure or facility. Backfill material shall be mechanically compacted to a relative compaction of not less than 95% in the top 2.5 feet of the trench and a minimum of 90% relative compaction below that point to the top of any conduit or pipe, within the traveled way and shoulder section of any County maintained road.

Upon written request and approval by the Department of Public Works, use of the attached **Exhibit C** Type II Trench detail may be allowed for collector roads, arterial roads, and trenches near the edge of road. Backfill material consisting of two (2) sack concrete slurry shall conform to Section 19-3.02D of CalTrans standard specifications, dated 2010 and shall be placed up to asphalt cap.

All trenches in typical details shall be temporarily capped with a minimum of three inches (3") of cold mix asphalt prior to opening the roadway to public traffic.

(10) The permanent pavement restoration for trenches excavated across or parallel to existing paved traveled way section of County roads shall consist of MINIMUM of three (3) inches of Type B asphalt concrete (hot mix). Temporary pavement shall be removed from all trenches prior to placing permanent paving. Trenches shall be sawcut in conformance with Exhibit B or Exhibit C beyond the asphalt concrete disturbed by trench excavation or the edge of the trench just prior to placing permanent paving. Trench edges shall be sealed after paving with bituminous oil (tack oil) to prevent water seepage. The finish paving SHALL NOT be CROWNED across the trench section and **shall be placed no later than 30 (thirty) days after initial trench excavation.**

(11) The Department of Public Works reserves the right to make as many compaction tests as it deems reasonably necessary to ensure that the compaction requirements are met. Permittee agrees to reimburse the Department of Public Works the reasonable cost of such tests. Said costs shall be in conformance with the Board of Supervisors latest adopted Ordinance.

(12) Permittee shall guarantee the trench work against failures after acceptance of the complete project by the Department of Public Works and shall cause such repairs to be made as are necessary to correct such failures. In the traveled way, a depression of one-four inch (1/4") per two feet (2') of trench width below the average of the sides of the uncut portion shall constitute a failure.

(13) Any damage to existing County road improvements (i.e., adjacent curb and gutter, drainage structures, road surface, etc.) caused by work authorized by this permit shall be repaired or replaced by the permittee to the satisfaction of the Department of Public Works.

(14) If Permittee fails to comply with the terms of this permit or to perform or complete work according to the terms of this permit or County or State specifications, the County may elect to perform and complete the work by any method the Director deems appropriate. Permittee shall reimburse County for the full cost at the then current Associated General Contractor's Cost schedule for such work for performing and completing the work according to County standards.

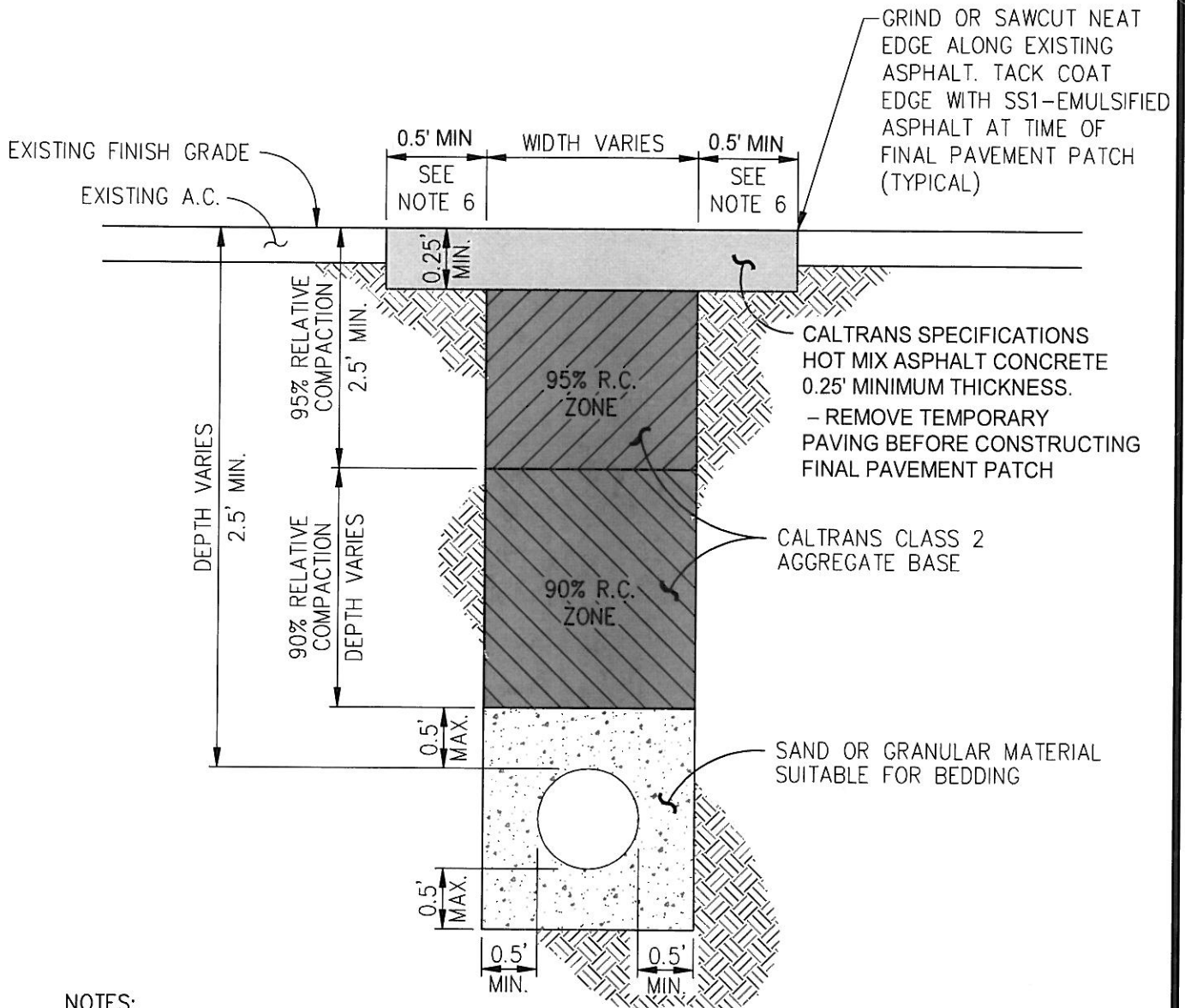
(15) The Permittee agrees to indemnify and hold harmless and, at its own risk, cost, and expense, defend the County of Humboldt, its officers, agents, and employees from and against any and all liability expense, including defense costs, legal fees, and claims for damages arising from Permittee's negligence, intentional acts, or breaches of this agreement excepting only liability arising from the sole negligence of the County. Indemnification with respect to defense costs shall be made at the time the County of Humboldt incurs such costs.

(16) Permittee, at its own expense, agrees to obtain and maintain policies of insurance as specified in **Exhibit D**, "Insurance Requirements" from the COUNTY RISK MANAGER.

(17) The Permittee shall be responsible for all work conducted by outside contractors operating under the authorization of the Permittee and the terms of this Annual Permit. The Permittee shall be responsible for all inspections and approval of facilities placed within County right of way by Permittee's contractor.

(18) Hours of operation shall be Monday through Friday, 7:00 a.m. to 5:00 p.m. Weekend operation may be acceptable to COUNTY, provided COUNTY is notified 48 hours (2 County business days) in advance and agrees to the weekend operation. Holiday operation shall only be granted with SPECIAL WRITTEN PERMISSION from the COUNTY. The allowable days and times of operation are void in the event of an emergency caused by a natural disaster or major facility failure. The COUNTY shall be notified of all work performed within an emergency situation within 48 hours.

(19) An Annual Encroachment Permit shall be valid for one (1) calendar year and shall be subject to periodic review, and any of the preceding conditions/requirements may be revised by the Department of Public Works whenever modifications or additional conditions are deemed necessary to protect the County right of way or the traveling public. Any activity done in violation of permit requirements shall be grounds for immediate revocation of the Annual permit by and at the discretion of the Director of Public Works.



NOTES:

1. THE TRENCH SHALL HAVE AT LEAST 0.25 FEET OF TEMPORARY COLD MIX ASPHALT BEFORE OPENING ROAD TO TRAFFIC.
2. FOR ITEMS NOT SHOWN, SEE ISSUED HUMBOLDT COUNTY ENCROACHMENT PERMIT.
3. ALL MATERIALS SHALL COMPLY WITH CALTRANS STANDARD SPECIFICATIONS, CURRENT EDITION.
4. IF GROUNDWATER IS ENCOUNTERED DURING TRENCH EXCAVATION, ENGINEER AND THE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED FOR SITE SPECIFIC CORRECTIVE MEASURES.
5. THE PERMITEE, OR ITS DESIGNEE, SHALL BE RESPONSIBLE FOR PERFORMING COMPACTION TESTS. THE DEPARTMENT OF PUBLIC WORKS RESERVES THE RIGHT TO MAKE AS MANY COMPACTION TESTS AS IT DEEMS REASONABLE TO ENSURE THAT THE COMPACTION REQUIREMENTS ARE MET. PERMITEE SHALL REIMBURSE THE DEPARTMENT OF PUBLIC WORKS FOR ALL COSTS ASSOCIATED WITH SUCH TESTS. SAID COSTS SHALL BE IN CONFORMANCE WITH THE HUMBOLDT COUNTY SCHEDULE OF FEES AND CHARGES FOR PERMITS AND SERVICES, AS ADOPTED BY THE BOARD OF SUPERVISORS.
6. WHEN EXISTING AC PAVEMENT IS LESS THAN 5 YEARS OLD, USE 9' MINIMUM.
WHEN EXISTING AC PAVEMENT IS MORE THAN 5 YEARS OLD, USE 0.5' MINIMUM

NOTE: FIGURES HEREON ARE NOT DRAWN TO SCALE, UNLESS OTHERWISE NOTED.



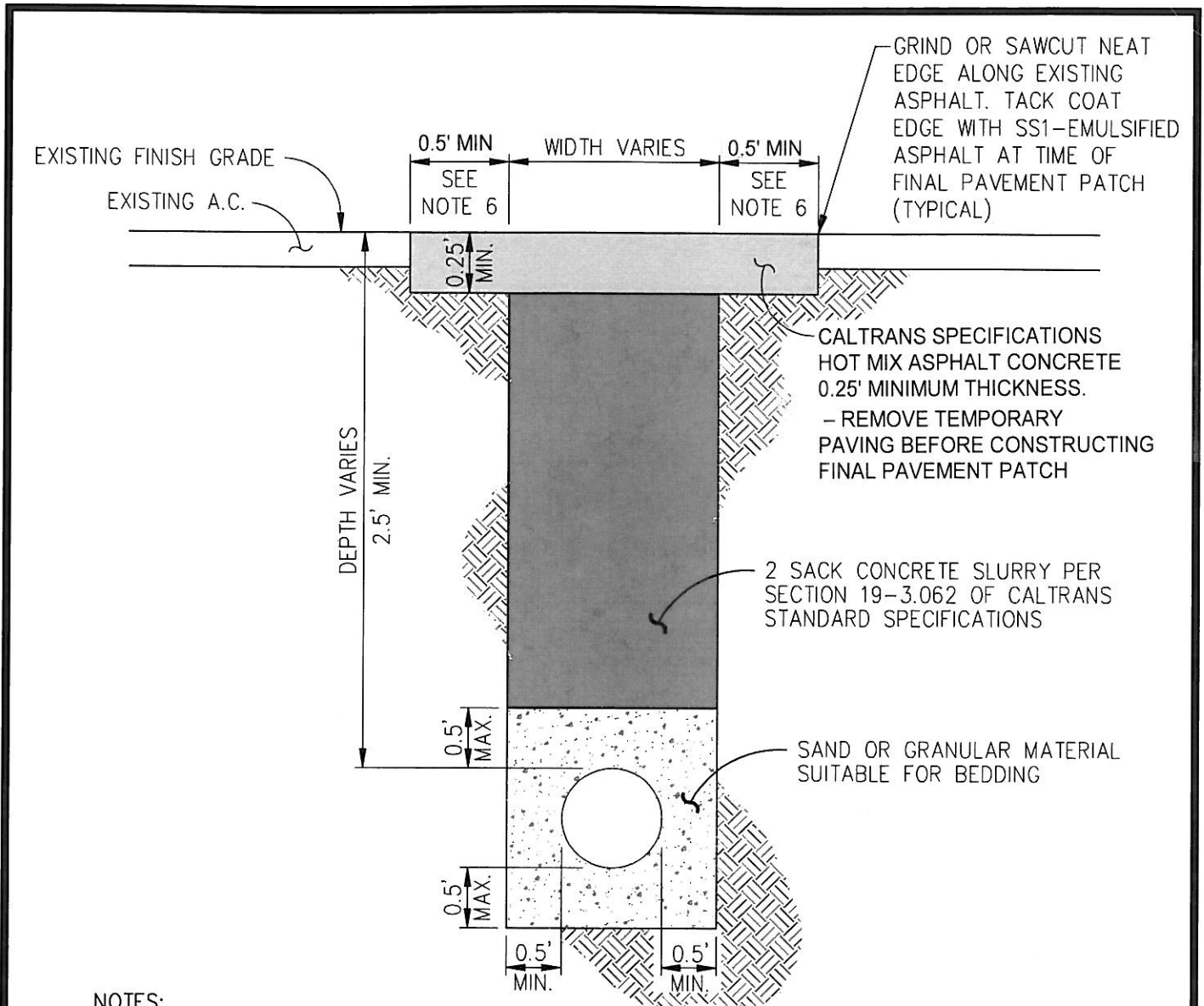
COUNTY OF HUMBOLDT
 DEPARTMENT OF PUBLIC WORKS
 1106 SECOND STREET * EUREKA * CA * 95501
 TEL (707) 445-7377 * FAX (707) 445-7409

TYPE I TRENCH DETAIL
-AGGREGATE BASE BACKFILL-

ISSUED: 08/26/2009 REVISED 04/22/2013
 F:\AUTOCAD PROJECTS\STANDARD PLANS\DWG\STD-PLAN_TRENCH DETAILS.DWG

STD DWG

SHT 1 OF 1



NOTES:

1. THE TRENCH SHALL HAVE AT LEAST 0.25 FEET OF TEMPORARY COLD MIX ASPHALT BEFORE OPENING ROAD TO TRAFFIC.
2. FOR ITEMS NOT SHOWN, SEE ISSUED HUMBOLDT COUNTY ENCROACHMENT PERMIT.
3. ALL MATERIALS SHALL COMPLY WITH CALTRANS STANDARD SPECIFICATIONS, CURRENT EDITION.
4. IF GROUNDWATER IS ENCOUNTERED DURING TRENCH EXCAVATION, ENGINEER AND THE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED FOR SITE SPECIFIC CORRECTIVE MEASURES.
5. THE PERMITEE, OR ITS DESIGNEE, SHALL BE RESPONSIBLE FOR PROVIDING CERTIFICATION OF MATERIALS TO THE COUNTY. THE DEPARTMENT OF PUBLIC WORKS RESERVES THE RIGHT TO MAKE AS MANY MATERIAL ASSURANCE TESTS AS IT DEEMS REASONABLE TO ENSURE THAT THE CONSTRUCTION MATERIAL REQUIREMENTS ARE MET. PERMITEE SHALL REIMBURSE THE DEPARTMENT OF PUBLIC WORKS FOR ALL COSTS ASSOCIATED WITH SUCH TESTS. SAID COSTS SHALL BE IN CONFORMANCE WITH THE HUMBOLDT COUNTY SCHEDULE OF FEES AND CHARGES FOR PERMITS AND SERVICES, AS ADOPTED BY THE BOARD OF SUPERVISORS.
6. WHEN EXISTING AC PAVEMENT IS LESS THAN 5 YEARS OLD, USE 9' MINIMUM.
WHEN EXISTING AC PAVEMENT IS MORE THAN 5 YEARS OLD, USE 0.5' MINIMUM

NOTE: FIGURES HEREON ARE NOT DRAWN TO SCALE, UNLESS OTHERWISE NOTED.



COUNTY OF HUMBOLDT
DEPARTMENT OF PUBLIC WORKS
1106 SECOND STREET * EUREKA * CA * 95501
TEL (707) 445-7377 * FAX (707) 445-7409

TYPE II TRENCH DETAIL
-CONCRETE SLURRY BACKFILL-
ISSUED: 08/26/2009 REVISED 04/22/2013
F:\AUTOCAD PROJECTS\STANDARD PLANS\DWG\STD-PLAN_TRENCH DETAILS.DWG

STD DWG
SHT 1 OF 1

INSURANCE REQUIREMENTS

THIS PERMIT SHALL NOT BE EXECUTED BY COUNTY and PERMITTEE/CONTRACTOR are not entitled to any rights, unless certificates of insurance, or other sufficient proof that the following provisions have been complied with, and such certificates(s) are filed with the Clerk of the Humboldt County Board of Supervisors.

Without limiting PERMITTEE/CONTRACTOR'S indemnification provided herein, PERMITTEE/CONTRACTOR shall and shall require any of its subcontractors to take out and maintain, throughout the period of this permit, the following policies of insurance placed with insurers with a current A.M. Bests rating of no less than A:VII or its equivalent against injury/death to persons or damage to property which may arise from or in connection with the activities hereunder of PERMITTEE/CONTRACTOR, its agents, employees, or subcontractors:

1. Comprehensive or Commercial General Liability Insurance at least as broad as Insurance Services Office Commercial General Liability coverage (occurrence form CG0001), in an amount of \$2,000,000 per occurrence. If work involves explosive, underground or collapse risks, XCU must be included. If a general aggregate limit is used, either the general aggregate limit shall apply separately to this project or the general aggregate shall be twice the required occurrence limit. Said policy shall contain, or be endorsed with, the following provisions:

a. COUNTY, its officers, employees, and agents, are covered as additional insured for liability arising out of the operations performed by or on behalf of PERMITTEE/CONTRACTOR. The coverage shall contain no special limitations on the scope of protection afforded to COUNTY, its officers, agents, and employees.

b. The policy shall not be canceled or materially reduced in coverage without thirty (30) days prior written notice (10 days for non-payment of the premium) to COUNTY by certified mail.

c. The inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverage afforded shall apply as though separate policies had been issued to each insured, but the inclusion of more than one insured shall not operate to increase the limits of the insurer's liability.

d. For claims related to this project, PERMITTEE/CONTRACTOR'S insurance is primary coverage to COUNTY, and any insurance or self-insurance programs maintained by COUNTY are excess to PERMITTEE/CONTRACTOR'S insurance and will not be called upon to contribute with it.

2. Any failure to comply with reporting or other provisions of the parties, including breach of warranties, shall not affect coverage provided to COUNTY, its officers, employees and agents. PERMITTEE/CONTRACTOR shall furnish COUNTY with certificates and original endorsements effecting the required coverage prior to execution of this permit by COUNTY. The endorsements shall be on forms as approved by the County Risk Manager or County Counsel. Any deductible or self-insured retention over \$100,000 shall be disclosed to and approved by COUNTY. If PERMITTEE/CONTRACTOR does not keep all required policies in full force and effect, COUNTY may, in addition to other remedies under this permit, take out the necessary insurance, and PERMITTEE/CONTRACTOR agree to pay the cost of said insurance. All coverage shall be with insurance carriers licensed and admitted to do business in California. All coverage shall be with insurance carriers acceptable to COUNTY.

Questions concerning insurance requirements shall be directed to the County Risk Manger at 707-268-3669.

**HUMBOLDT COUNTY
DEPARTMENT OF PUBLIC WORKS
LAND USE DIVISION**

A complete permit (or permit copy) is required at each work site.

Please Note: **Traffic control is required at each work location.**
PLEASE INFORM ALL WORK CREWS OF THE TRAFFIC CONTROL REQUIREMENT.

At several locations, it has been observed that work was being performed in a County Right of Way without appropriate Traffic Control. Traffic Control warning devices are required even when working in roadway shoulder areas that do not require travel lane closure.

Any activity done in violation of permit requirements shall be grounds for immediate revocation of the Annual permit by and at the discretion of the Director of Public Works.

The most commonly applied traffic control plans and CAMUTCD figure are mentioned below and other plans and figures are available at the CalTrans web site – www.dot.ca.gov

1. For lane closure -

Traffic Control System for Lane Closure on Two Lane Conventional Highways, Plan No. T13 with T9.

2. For shoulder closure - CAMUTCD Pages 1149, 1150, 1135, 1136, 1137

Conditions requiring a traffic control plan other than Caltrans T13 with T9 or Figure 6H-6 will require submittal and Public Works approval of a traffic control plan prepared by a Registered Civil Engineer (or Traffic Engineer).

If you have any questions, please contact me at (707) 445-7205.

If you would like emailed PDFs of the above plans, email me at publicworkspemits@co.humboldt.ca.us

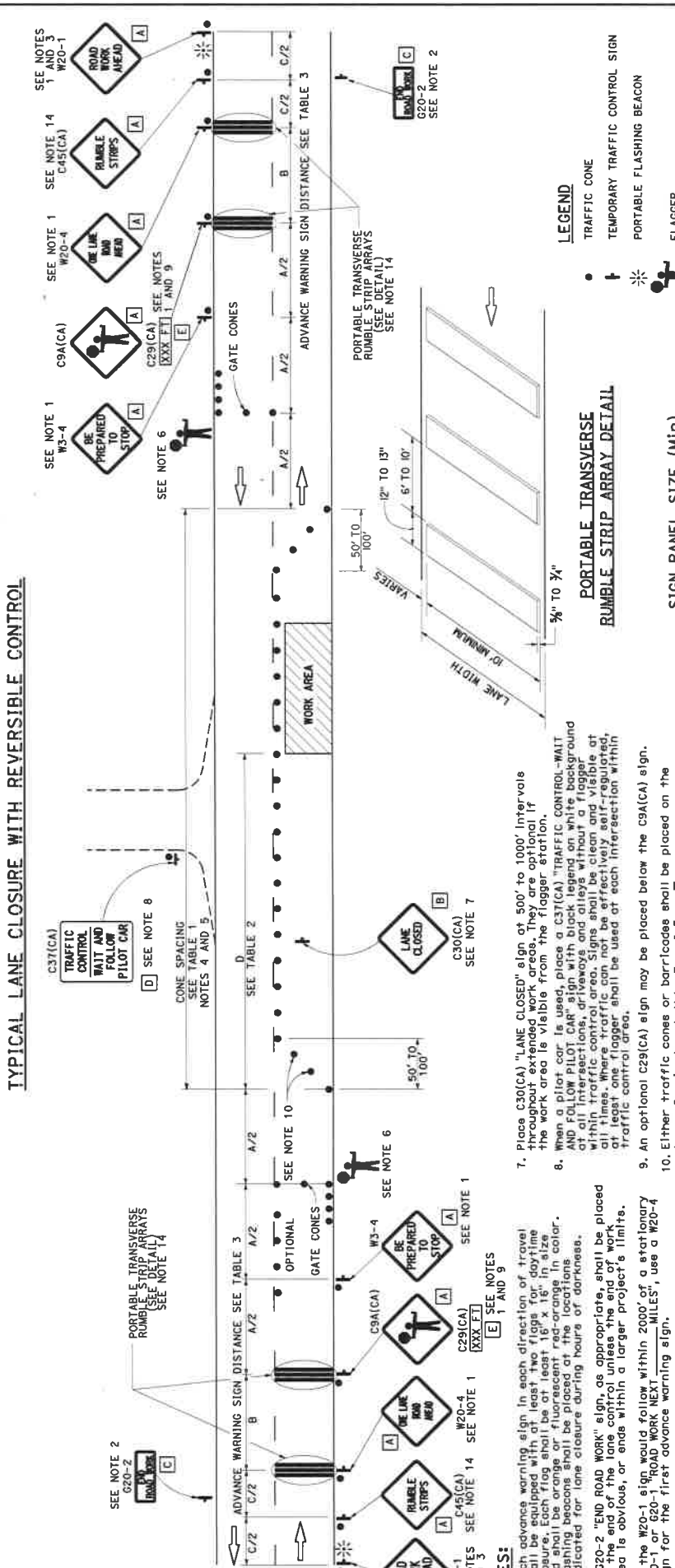
Sincerely,



Glen Anderson
Engineering Technician
Land Use Division

The above mentioned plans and figure are included on the following pages.

STATE AGENCIES TOTAL SHEETS: 10 SHEETS
 COUNTY ROUTE: _____
 DATE: October 30, 2015
 DRAWN BY: _____
 CHECKED BY: _____
 APPROVED BY: _____
 PROJECT NO.: CS0410
 DRAWING NO.: T13
 SCALE: AS SHOWN
 ALL DIMENSIONS IN FEET AND INCHES UNLESS OTHERWISE SPECIFIED
 ALL WORK SHALL BE ACCORDING TO THE STANDARD SPECIFICATIONS FOR HIGHWAYS OF THE STATE OF CALIFORNIA



NOTES:

- See Standard Plan T9 for tables. Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
- All temporary warning signs shall have black legend on fluorescent orange background.
- California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

NOTES:

- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits. W20-1 or G20-1 "ROAD WORK NEXT" sign, use a W20-4 sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves).
- Portable delineators, placed at one-half the spacing of cones for daytime closures only.
- Additional advance flaggers may be required. Flaggers approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be such that the flagger is clearly visible for four cones at 50' intervals in advance of flagger station as shown.
- Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. When a pilot car is used, it shall be placed at least one flagger shall be used at each intersection within traffic control area.
- An optional C29(CA) sign may be placed below the C9A(CA) sign. Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III. The color of the portable transverse rumble strips consist of 3 rumble strips.
- Portable transverse rumble strips shall not be placed on sharp pedestrian crossings.
- If the portable transverse rumble stripes become out of alignment (kicked) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
- Portable transverse rumble stripes are not required if any one of the following conditions is satisfied:
 - A. Work duration occupies a location for four hours or less
 - B. Work is of emergency nature
 - C. Work is of emergency nature
 - D. Work zone is in snow or icy weather conditions

**TRAFFIC CONTROL SYSTEM
FOR LANE CLOSURE ON
TWO LANE CONVENTIONAL
HIGHWAYS**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

T13

DATE	COUNTY	ROUTE	POST-MILEAGE	SECTION	SHEET NO.	TOTAL SHEETS

Devin Anderson
Devin Anderson, Professional Engineer
 License No. C590470
 Exp. 6-30-17
 State of California

October 30, 2015
 DAVIS ROADWAY PROJECT
 CONTRACT NO. 45525534
 SHEET NO. 1315
 FOR THE CALIFORNIA HIGHWAYS DEPARTMENT
 DIVISION OF TRANSPORTATION
 1475 STREET, SACRAMENTO, CALIFORNIA 95833

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING

SPEED (S) mph	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET (W)						MAXIMUM CHANNELIZING DEVICE SPACING				
	TANGENT		MERGING		SHIFTING SHOULDER		TAPER	X	Y	Z	Z **
	2L	L	L	L/2	L/2	L/3					
20	160	80	40	40	27	20	40	10			
25	250	125	63	42	29	30	60	15			
30	360	180	90	60	30	35	70	17			
35	490	245	123	82	35	40	80	20			
40	640	320	160	107	40	45	90	22			
45	1080	540	270	180	45	50	100	25			
50	1200	600	300	200	50	55	110	27			
55	1320	660	330	220	55	60	120	30			
60	1440	720	360	240	60	65	130	32			
65	1560	780	390	260	65	70	140	35			
70	1680	840	420	280	70	75	150	38			

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2/60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
 W = Width of offset in feet
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING

SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
20	115	116	120	128
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph
 ** - Longitudinal buffer space or flagger station spacing and longer than 1 mile.
 *** - Use on sustained downgrade steeper than -3 percent

TABLE 3

ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS *			
	A	B	C	
URBAN - 25 mph OR LESS	100	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250	250
URBAN - MORE THAN 40 mph	350	350	350	350
RURAL	500	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	1500	2540

* - The distances are approximate, are intended for guidance purposes only, and should be adjusted by the Engineer for field conditions. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

Notes for Figure 6H-6—Typical Application 6 Shoulder Work with Minor Encroachment

Guidance:

1. All lanes should be a minimum of 10 feet in width as measured to the near face of the channelizing devices.
2. The treatment shown should be used on a minor road having low speeds. For higher-speed traffic conditions, a lane closure should be used.

Option:

3. For short-term use on low-volume, low-speed roadways with vehicular traffic that does not include longer and wider heavy commercial vehicles, a minimum lane width of 9 feet may be used.
4. Where the opposite shoulder is suitable for carrying vehicular traffic and of adequate width, lanes may be shifted by use of closely-spaced channelizing devices, provided that the minimum lane width of 10 feet is maintained.
5. Additional advance warning may be appropriate, such as a ROAD NARROWS sign.
6. Temporary traffic barriers may be used along the work space.
7. The shadow vehicle may be omitted if a taper and channelizing devices are used.
8. A truck-mounted attenuator may be used on the shadow vehicle.
9. For short-duration work, the taper and channelizing devices may be omitted if a shadow vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
10. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

Standard:

11. **Vehicle-mounted signs shall be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs shall be covered or turned from view when work is not in progress.**
12. **Shadow and work vehicles shall display high-intensity rotating, flashing, oscillating, or strobe lights.**
13. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.**

Guidance:

14. *All advance warning signs should be placed so that the path of travel for bicycles is not blocked, while maintaining visibility for road users.*
15. *When existing accommodations for bicycle travel are disrupted or closed in a long-term duration project (see Section 6G.02) and the roadway width is inadequate for allowing bicyclists and motor vehicles to travel side by side, the Bicycle Warning (W11-1) sign and the SHARE THE ROAD (W16-1P) plaque should be used to advise motorists of the presence of bicyclists in the travel way lanes.*
16. *Except for short durations and mobile operations, when a highway shoulder is occupied and bicyclists would be sharing a lane with vehicular traffic, as a result of the TTC zone, speed reduction countermeasures should be used to reduce traffic speeds in the TTC zone. Refer to Sections 6C.01 and 6D.03.*
17. *Except for short durations and mobile operations, when a highway shoulder is occupied and bicyclists would be sharing a lane with vehicular traffic, as a result of the TTC zone, before narrowing the outside lane other measures such as widening the outside shoulder to allow bicyclists and motor vehicles to travel side by side through the TTC zone should be considered.*
18. *If traffic volumes make it feasible, the two left lanes should be merged into one lane to avoid using the shoulder as a traveled way lane and allowing continued use for emergency purposes and bicycle travel.*
19. *When existing accommodations for bicycle travel are disrupted or closed in a long-term duration project (see Section 6G.02) and the roadway width is inadequate for allowing bicyclists and motor vehicles to travel side by side, a separate path should be considered for bicyclists.*

Figure 6H-6. Shoulder Work with Minor Encroachment (TA-6)

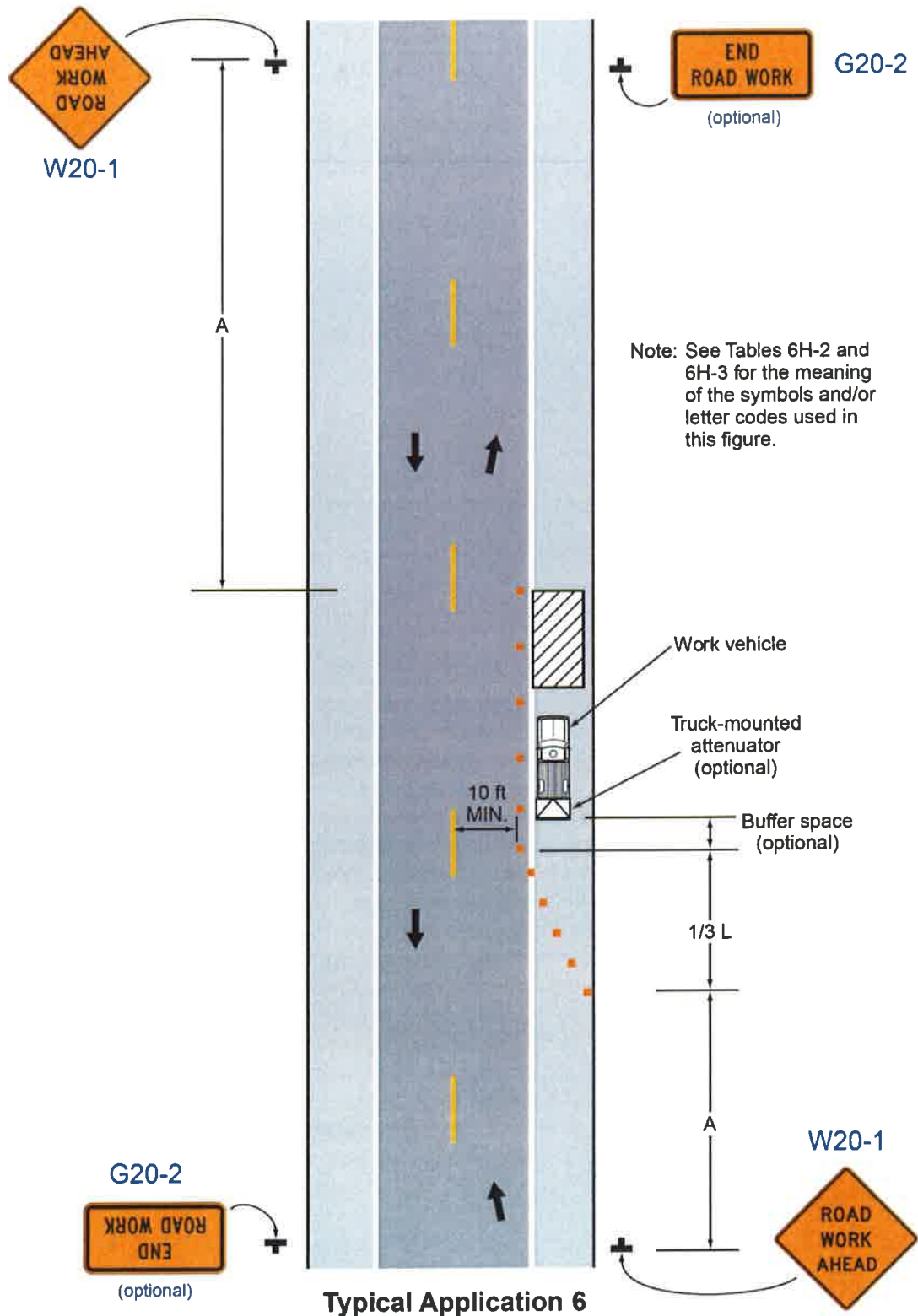


Table 6H-1(CA). Index to Typical Applications

Typical Application Description	Typical Application Number
<i>Work affecting Pedestrian and Bicycle Facilities (see Section 6G.05)</i>	
Shoulder Closure on Urban (Low Speed) Locations to Accommodate Bicyclists	TA-101(CA)
Lane Closure on Freeway, Expressway, Rural and Urban (High Speed) Locations to Accommodate Bicyclists	TA-102(CA)
Detour for Bike Lane on Roads with Closure of One Travel Direction	TA-103(CA)
Right Lane and Bike Lane Closure on Far Side of Intersection	TA-104(CA)
<i>Work Within the Traveled Way of a Two-Lane Highway (see Section 6G.10)</i>	
Lane Shift on Road with Low Traffic Volumes	TA-105(CA)

Table 6H-2. Meaning of Symbols on Typical Application Diagrams
























	Arrow board		Shadow vehicle
	Arrow board support or trailer (shown facing down)		Sign (shown facing left)
	Changeable message sign or support trailer		Surveyor
	Channelizing device		Temporary barrier
	Crash cushion		Temporary barrier with warning light
	Direction of temporary traffic detour		Traffic or pedestrian signal
	Direction of traffic		Truck-mounted attenuator
	Flagger		Type 3 barricade
	High-level warning device (Flag tree)		Warning light
	Longitudinal channelizing device		Work space
	Luminaire		Work vehicle
	Pavement markings that should be removed for a long-term project		

Table 6H-3. Recommended Advance Warning Sign ~~Minimum~~ Spacing

Road Type	Distance Between Signs**		
	A	B	C
Urban (low speed)- 25 mph or less***	100 feet	100 feet	100 feet
Urban - more than 25 mph to 40 mph***	250 feet	250 feet	250 feet
Urban (high speed)- more than 40 mph***	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

- * ~~Speed category to be determined by the highway agency.~~
- ** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)
- *** Posted speed limit, off-peak 85th-percentile speed prior to work starting, or other anticipated operating speed in mph.

Table 6H-4. Formulas for Determining Taper Length

Speed (S)	Taper Length (L) in feet
40 mph or less	$L = \frac{WS^2}{60}$
45 mph or more	$L = WS$

Where: L = taper length in feet
 W = width of offset in feet
 S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

**Table 6H-4(CA). Taper Length Criteria for Temporary Traffic Control Zones
 (for 12 feet Offset Width)**

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (W)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50
75	900	450	300	50

* - Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

** - For other offsets use the following merging taper length formula for L:
 For speeds of 40 mph or less, $L=WS^2/60$
 For speeds of 45 mph or more, $L=WS$

Where:
 L = taper length in feet
 W = width of offset in feet
 S = posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

*** - Maximum downstream taper length is 100 feet. See Section 6C.08.



DEPARTMENT OF PUBLIC WORKS, Land Use Division
COUNTY OF HUMBOLDT

2018 Annual Encroachment Permits

NEW REPORTING REQUIREMENTS

Mandatory reporting of ALL WORK is required through our online form.

(See Permit Item #18 - reference County Code Section 411-11)



To find the online notification form:

Go to humboldt.gov and search for "Form Center"
Once in Form Center, scroll down to "Public Works"

-OR-

Use the URL:

<https://humboldt.gov/FormCenter/Public-Works-12/Annual-Encroachment-Permit-Holder-Projec-93>

APPENDIX B
HUMBOLDT COMMUNITY SERVICES DISTRICT
WATER
CONSTRUCTION STANDARDS

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HUMBOLDT COMMUNITY SERVICES DISTRICT



WATER AND SEWER DESIGN AND CONSTRUCTION STANDARDS

Second Revision

Approved by the
HCSD Board of Directors
at its Regular Meeting of
September 13, 2016

Set No. _____

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

III. WATER SYSTEM CONSTRUCTION STANDARD SPECIFICATIONS

WATER MAIN CONSTRUCTION

1. Description

- A. All water mains and related appurtenances shall be constructed in accordance with the Humboldt Community Services District Water System Design Standards.
- B. In order to maintain compatibility with existing District materials and operations, certain valves, meters, gauges and water service appurtenances will not have an "approved equal" and shall be of the type herein required.

2. Pipe

The pipe, except where otherwise specified on the plans, can either be Ductile Iron Pipe (DIP) or Polyvinyl Chloride (PVC), all in accordance with the following:

- A. Each and every length of pipe and coupling shall be marked with the manufacturer's name, lot number and the date the pipe was tested.
- B. The pipe shall be tested in accordance with the most recent American Water Works Standard Specifications and amendments thereto for the pipe furnished. The testing shall be performed in a State licensed materials testing laboratory where the testing standards meet or exceed State of California testing standards.
- C. Accompanying or preceding each load of pipe delivered, if requested, a certificate shall be furnished to the District certifying that the pipe which is (to be) delivered has been tested and meets the requirements of the American Water Works Association Standard Specifications. The certificate shall identify the pipe by manufacturer's name, lot number and date tested by a State certified materials test laboratory.

3. Ductile Iron Pipe

- A. Ductile iron pipe shall be manufactured in accordance with AWWA Standard C151 of the California Waterworks Standard, and as amended in these Specifications and shall be coated with bitumastic when installed above ground.

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

- B. Joints shall be U.S. Pipe Tyton Push-On Joint, or approved equal, for underground, and U.S. Pipe TR Flex, or approved equal, for above ground, unless otherwise shown on the plans. Class 50 may be assumed unless otherwise called for. Pipe buried less than 1½ feet shall be Class 52.
- C. All ductile iron pipe and fittings shall be Bituminous coated outside and cement-lined inside with Type V cement mortar lining, per AWWA C104. All ductile iron pipe, fittings, valves and appurtenances shall be encased in an 8-mil polyethylene tube in accordance with ANSI/AWWA C105/A21.5. Installation of polyethylene tube shall be by Method A: One length of polyethylene tube for each length of pipe, overlapped at joint.
- D. Flanged joints shall conform to ANSI/AWWA/C110/A21.10-12. All flanged pipes shall be shop fabricated to the exact lengths required so that no field cutting or threading is required. All flanges shall be firmly attached in the shop.
- E. Gasket material for flanged joints shall be 1/8 inch thick, cloth-inserted rubber, one piece, full-faced with holes to pass bolts. Gasket material shall be free from corrosive alkali or acid ingredients and suitable for use in potable water lines.
- F. Ductile iron pipe used in conjunction with grooved coupling fittings shall have a wall thickness sufficient to permit cutting a groove of the depth required to accommodate the coupling and to maintain the required pressure rating of the pipe.
- G. Bolts and nuts for ductile iron couplings shall be low alloy steel (ASTM A-193). The alloy composition shall be such that the bolts are cathodic to the coupling.
- H. When bolting steel flanges to ductile iron flanges, bolting shall not be stronger than carbon steel per ASTM A307, Grade B.
- I. All bolts installed in corrosive soil as determined by the District shall be stainless steel.
- J. All underground ductile iron pipe shall have loose polyethylene encasement.

4. Polyvinyl Chloride

- A. Polyvinyl chloride (PVC) Pipe 4" through 12" shall be minimum class 150, or as shown on the plans and conforming to the requirements of AWWA C900 "Standard for Polyvinyl Chloride Pressure Pipe, 4" through 12" for Water" and shall be furnished with either bell ends or couplings designed to effect an

HUMBOLDT COMMUNITY SERVICES DISTRICT DESIGN AND CONSTRUCTION STANDARDS

elastomeric pressure seal. PVC pipe greater than 12" shall be Class 12454 (DR18) unplasticized polyvinyl conforming to AWWA C905 and ASTM D2241.

- B. Number 12 insulated coated copper wire shall be attached on top of and along the exterior length of all non-metallic mains and non-perpendicular service laterals for a continuous circuit and shall be extended to the surface at all valve locations blow-offs and meter boxes sufficiently for locator equipment to be attached.
- C. All rubber gaskets shall be solid cross section conforming to ASTM D-1869 and F-477.
- D. PVC service line less than 4" shall be minimum schedule 40.

5. Polyethylene

All water service tubing 2" and smaller shall be polyethylene PE 3408, IDR 7 conforming to AWWA C901-88 and ASTM D-3550 with a water pressure rating of 200 psi. Polybutylene (PB) service tubing shall not be allowed.

6. Fittings

- A. All fittings shall be new gray iron or ductile iron fittings conforming to ANSI/AWWA C110/C153 or latest revision and shall have the proper type of ends to match the type of pipe used. Gray iron fittings shall be coated inside and outside with a petroleum asphaltic coating conforming to AWWA C110 and shall meet or exceed the pressure rating of the pipe to be installed.
- B. Ductile iron fittings shall be cement mortar lined in accordance with AWWA C104 or latest revision and shall have a petroleum asphaltic coating conforming to AWWA C110. Ductile iron fittings shall have a minimum pressure rating of 250 psi and shall otherwise meet or exceed the pressure rating of the pipe to be installed and shall have a minimum Class 53 thickness rating.

7. Gate Valves

- A. Gate Valves Greater Than Three Inches:

Valves 3 inches in diameter and larger shall conform to AWWA C-509 resilient-seated gate valves with iron body, epoxy coated, bronze mounted, non-rising stem valves with O-ring seals. Hand wheels shall be furnished for all installations where valve is exposed, otherwise they shall be furnished with 2-

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

inch square operating nut. Valve ends shall be as shown or required for the connection. Valves shall be rated for 200 psi working pressure and shall open counter-clockwise. Valves shall be Waterous, Clow, or AVK. Each valve shall have the manufacturer's name, pressure rating and year in which manufactured, cast into the body.

B. Gate Valves Smaller Than Three Inches:

Valves smaller than three inches shall be epoxy-coated resilient seated gate valves with non-rising stems and be capable of handling a cold water working pressure of 200 pounds. Inlet and outlet are to be threaded. Blow-off valves shall be Clow or Waterous Series 500 with 2-inch square operating nut.

C. Ball Valves Smaller Than Three Inches:

Valves shall be 150 psi, brass body ball valves, with a lever handle as manufactured by Apollo.

8. Butterfly Valves

Butterfly valves shall conform to AWWA Standard C504 or latest revision and shall be of the rubber seat type. Valve discs shall rotate 90 degrees for the full open position to the tight shut position. The valve seat shall provide a tight shutoff at a pressure differential of 150 psi upstream and 0 psi down-stream in either direction. The valve operator shall be the traveling nut type. Valve shall open with a counter-clockwise rotation of the operating nut. Valves shall be as manufactured by Waterous, Clow, or AVK.

9. Valve Boxes

Each valve shall be covered by a pre-cast 8-inch valve box set flush with the street surface with cast iron ring and cover marked "WATER". The valve boxes shall be Christy G5 or approved equal.

10. Fire Hydrant and Lateral Assembly

- A. At the location(s) shown on the plans, the Contractor shall provide and install a fire hydrant and lateral assembly. ~~Fire hydrants shall be "dry barrel" Clow.~~
"WET BARREL" Clow 2546-5b Fire Hydrants
- B. No bends will be allowed in fire hydrant laterals without approval of the General Manager.

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

- C. All fire hydrants shall have two 2½-inch outlets and one 4-inch outlet. All threads shall be NST.
- D. All public hydrants shall be painted with one coat of reflecting yellow paint. Private hydrants shall be painted red.
- E. All hydrants shall be installed plumb, three inches minimum and six inches maximum above finished grade.
- F. Before a fire hydrant may be placed in service, a high velocity flushing of the hydrant lateral shall be witnessed and approved by District personnel.

11. Asbestos Cement Pipe

- A. The installation of asbestos cement pipe is prohibited.
- B. All cutting, handling and disposal of existing asbestos cement pipe shall be done in compliance with the Contractor's State Licensing Law and all applicable laws and regulations.

12. Air/Vacuum Release Valves and Covers

The valves shall be equipped with an inlet ball valve. The valves shall be as manufactured by APCO, Crispin or approved equal. Size shall be determined by operating conditions.

13. Main Line Pressure Reducing Valves and Vaults

Main line pressure reducing valve assemblies shall be as manufactured by Cla-Val Co. Valves shall be flanged 125 class adjustable from 30 to 125 psi. The pressure reducing station vault shall be as shown on the drawings and shall have a recessed, non-exposed and flush, locking mechanism. Size shall be determined by operating conditions.

14. Pressure Gauges and Appurtenances

Ashcroft, or equal, range [0 to 100] psig, or as shown on the Plans, [3½ inch dial], ¼ inch bottom male connection, stainless steel or brass case, phosphor bronze bourdon tube, glycerin filled, accuracy 1% of full-scale range. All pressure gauges shall have an Apollo ball valve between feed line and gauge.

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15. Gauge Piping

Piping for pressure gauges shall be copper or brass except as noted. A nylon bushing or dielectric union shall be used at connections between iron or steel pipes and the brass or copper pipes.

16. Service Saddles

Service saddles shall be installed as shown on the Plans. Service saddles shall be Ductile Iron saddle casting, stainless steel nylon coated with stainless steel double strap. Service saddles shall be Romac 202N. Saddle shall be stamped for use with C-900 pipe.

17. Corporation Stops

Corporation stops for polyethylene water service shall be manufactured of bronze conforming to ASTM B-62, male iron pipe threaded inlet by joint outlet (IPS) for PE pipe. Corporation stops shall be AY MacDonald.

18. Service Tubing Couplings

Service tubing couplings for iron pipe size polyethylene tubing shall be manufactured of bronze conforming to ASTM B-62 and be of a compression type with a stainless steel insert stiffener. Couplings shall be male iron pipe by compression or female iron pipe by compression. Female iron pipe types shall be AY MacDonald.

19. Angle Meter Stops

Angle meter stops shall be manufactured of bronze conforming to ASTM B-62. A PE pack joint inlet and a meter nut union outlet with a lockwing provided on the top of the fitting to operate the shutoff mechanism. Angle meter stops shall be AY MacDonald.

20. Service Tubing

Service tubing shall be of the diameter shown on the drawings polyethylene plastic tubing of high molecular density specification 3408. The polyethylene shall be Schedule 200 (IPS), as manufactured by Westflex Gold Label. All pipe shall be factory marked with the size and standard indicated.

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21. Water Meter Boxes

- A. Water meter boxes shall be Christy B9X for typical 5/8-inch residential service. Water meter box sizes for services greater than 5/8-inch shall be determined by District on a size by size basis.
- B. Water meters shall be enclosed in a separate individual box. Appurtenant facilities such as backflow devices, etc., shall be contained in their own box.

22. Extension Stems

Extension stems shall be Mueller Figure 1 or Figure 2 as indicated, Kennedy, or equal. Stem diameters shall be 1¼ inches unless otherwise shown. Stem guides shall be Mueller, Kennedy, or equal. Guides shall be spaced such that the slenderness ratio of the stem body does not exceed 200.

23. Tapping Sleeves

Hot tap sleeves shall be Romac Brand "SST" stainless steel tapping sleeves of the size required.

24. Restraint Systems

- A. Mechanical restraint may be used in lieu of thrust block, rods or clamps. Mechanical restraint shall be designed to fully restrain the piping system and pressure with a minimum safety factor of 2:1.
- B. Mechanical restraint devices shall be manufactured of ductile iron pipe conforming to ASTM A536. Dimensions of the device shall be such that it can be used with standardized pipe sizes. Gaskets shall be factory provided for the mechanical restraint device used.
- C. Mechanical restraint devices shall be as manufactured by Romac Industries (grip ring), EBBA Iron (Megalug) or approved equal.

25. Bolts, Gaskets, Glands, Nuts

- A. Bolts, gaskets, glands, nuts, and miscellaneous accessories required to install all valves are to be furnished. Bolts for flanged connections shall be American Standard regular unfinished hex heads. Nuts shall be American Standard regular hexagonal dimensions. Gaskets for flanged connections shall be suitable for the pressure, temperature, and chemical characteristics of the fluid

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handled. The gasket materials shall also be suitable for the pipe system physical characteristics and materials. Gasket material for flanged joints shall be 1/8 inch thick, cloth-inserted rubber, one piece, full faced with holes to pass bolts. Gasket material shall be free from corrosive alkali or acid ingredients and suitable for use in potable water lines. Jointing materials for mechanical joints shall conform to ANSI A21.11.

- B. Specific ground applications may require stainless steel bolts and nuts as determined by the District.

26. Excavation and Backfill

- A. Excavation and backfill of the pipeline shall be as shown on the "Standard Trench Detail" of the Humboldt Community Services District Standard Drawings.
- B. Excess Material from excavation shall become the property of the Contractor and shall be disposed of properly in accordance with all applicable rules and regulations.

27. Laying and Handling Pipe Materials

- A. Proper implements, tools and facilities satisfactory to General Manager shall be provided and used by the contractor for safe, convenient and workmanlike prosecution of the work. All pipe fittings and valves shall be carefully lowered into the trench in such a manner as to prevent damage to pipe coatings. Under no circumstances shall pipe or accessories be dropped or dumped into the trench. Before lowering and while suspended, the pipe shall be inspected for defects and the cast iron pipe rung with a light hammer to detect cracks. Any defective, damaged or unsound pipe shall be rejected and sound material furnished. Cutting of pipe for inserting valves, fittings or closure pieces shall be done in a neat and workmanlike manner without damage to pipe.
- B. Whenever it is necessary, either in the vertical or horizontal plane, to avoid obstructions, or when long radius curves are permitted, the amount of deflection shall not exceed the maximum recommended by the pipe manufacturer or that required for satisfactory jointing.
- C. Each length of pipe shall be free of any visible evidence of contamination, dirt and foreign material before it is lowered into its position in the trench, and it shall be kept clean by approved means during and after laying. At times when pipe laying is not in progress, the open ends of any pipe which have been laid

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

shall be closed by approved means to prevent the entrance of small animals or foreign materials. Trench water shall not be permitted to enter the pipe.

28. Laying PVC Pipe

- A. Individual pieces of pipe, valves and fittings shall be joined by placing the rubber rings on the machined ends of the pipe and pulling the couplings, valves or fittings in accordance with the manufacturer's recommendations. The rings shall be checked to be sure they are in the proper position after the coupling is in place. Care shall be taken to insure proper seating of the rings, and adapters shall be utilized for connections as required by the manufacturer.
- B. Fittings for PVC pipe shall be either the mechanical joint type or the push-on type.
- C. PVC pipe shall be as specified in and installed per AWWA C900 or latest revision and in accordance with the manufacturer's recommendations.

29. Laying of Ductile Iron Pipe (DIP)

- A. The flame cutting of pipe by means of oxyacetylene torch shall not be allowed.
- B. Ductile iron pipe shall be as specified in and installed per AWWA C600 or latest revision and in accordance with the manufacturer's recommendations.

30. Thrust Blocking

All tees, bends and plugs shall be provided with thrust blocking and/or gripping as shown on the plans or in accordance with Standard Drawings.

31. Hydrostatic Test

- A. A hydrostatic and leakage test shall be performed after the line has been laid and all backfill placed and compacted as specified elsewhere in these specifications. The Contractor, at his option, may test the line at any time during construction. However, the final test for acceptance shall be made only after all backfill is in place, and compaction tests completed. Each valved section of pipe, or combined sections, as approved by the General Manager, shall be subjected to a hydrostatic pressure of 2 times working pressure but not less than 150 psi for 60 minutes. Valves on existing mains in services required to be operated in connection with this section of pipe shall be slowly filled with

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

water and the specified test pressure shall be applied by means of a pump connected to the pipe in a satisfactory manner. The pump, pipe connection, all necessary apparatus, gauges and measuring devices shall be furnished by the Contractor. The Contractor shall make the taps into the pipe and shall furnish all necessary assistance for conducting the tests. Before applying the test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made, if necessary, at the points of the highest elevation, and afterward tightly plugged.

- B. Suitable means shall be provided by the Contractor so that District can determine the quantity of water leakage under the test pressure. Leakage shall not exceed the rate of 24 gallons per inch diameter, per 24 hours, per mile of pipe. All visible leaks shall be repaired regardless of meeting above test. The Contractor shall, at his own expense, locate the cause and repair the leakage.

32. Chlorination of Pipeline

- A. Chlorine may be applied by any of the standard methods indicated in AWWA C651, subject to the approval of the District. The point of application of the chlorination agent shall be at the beginning of the pipe extension, or any valved section of it, and through a corporation stop inserted in the newly laid pipe or at an end line blowoff.
- B. Water from the existing distribution system shall be controlled to flow very slowly in the newly laid pipe during the application of chlorine. Valves on existing mains in service shall be operated only by personnel of the District. The rate of chlorine feed shall be in such proportion to the rate of water entering the pipe that the chlorine dose applied to the water entering the newly laid pipe shall be at least 100 ppm. Precautions shall be taken to prevent back pressure causing a reversal of flow into pipe treated.
- C. Treated water shall be retained in the pipe for a period of twenty-four hours. After the chlorine treated water has been retained for the required time, the free chlorine residual at the pipe extremities and at representative points shall be at least ten (10) parts per million. In the process of chlorinating, all valves and other appurtenances on the newly laid main shall be operated.
- D. Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipeline. The water throughout its length shall, upon test, both chemically and bacteriologically be proved equal to the water quality serviced the public from the existing water supply system. Should the initial treatment,

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

in the opinion of the District prove ineffective, the analysis shall be made by a State certified analytical laboratory.

- E. Care shall be taken, and if necessary provisions shall be made by the Contractor to insure no highly chlorinated water from treated pipelines enters any natural surface waters either directly or by way of any storm drainage systems. Contractor shall be responsible for the proper flushing of treated water in conformance with state and federal regulations.
- F. Chlorination procedure shall be repeated until confirmed tests show that the water sampled from the newly laid pipe conforms to the above requirements.
- G. There shall be a 24-hour waiting period after blowing off the main prior to taking bacteria samples. Bacteria tests are valid for only 30 days. If there is more than a 30-day lapse between a passing bacteria test and the applicable tie in, the bacteria test must be repeated prior to water main tie-in. Sampling and testing shall be done by District personnel at the expense of the contractor.

33. Water Main Tie Ins

- A. The Contractor shall notify the District 72 hours prior to individual mainline shutdowns required to facilitate his tie-in operations. The contractor shall schedule tie-in work with the District at (707) 443-4558. Tie-ins will not be scheduled until a passing bacteria test has been received by the District from a certified laboratory. All shutdowns, valve turning operations, and existing main hot-taps shall be performed **by District personnel only**. A District inspector must be present during all tie-in operations. No tie-ins shall be performed without prior authorization of the District.
- B. Contractors or parties who fail to keep field appointments may be billed for scheduled District personnel waiting or standby time which was used and the contractor shall bear the costs incurred by the District for renotification of its customers.
- C. Interruption of service to commercial customers shall, as much as practical, be coordinated with the customer's needs. The Contractor will contact the customer, consider the customer's interests and inform the District accordingly.
- D. After hours work or weekend work is to be avoided whenever possible and any overtime costs of the District shall be at the expense of the contractor requesting such after hours work. Normal field inspection hours are: 8:30 a.m. to 4:30 p.m. Monday through Friday.

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

- E. Contractors or parties requiring work of any kind by the District shall request such services a minimum of 7 days in advance of the time such services are desired. Work requests, which will involve District personnel for more than 8 hours and/or extensive number of District supplied parts, shall be requested a minimum of 14 calendar days in advance.
- F. If it is necessary to terminate service to any customer, the contractor shall make the request for such work an additional 72 hours (three additional working days for a total of five working days in advance notice) in advance of the time such services are desired, to allow the customers affected to have a minimum of 72 hours notice.
- G. During the work, the Contractor shall exercise all necessary precautions to prevent the entrance of trench water or any other foreign material into the water main and shall conduct all operations in accordance with the most stringent sanitary practices. The interior of all appurtenances being installed shall be thoroughly swabbed with a 1% hypochlorite disinfecting solution prior to installation per AWWA requirements.

34. Water System Component Reporting

The Contractor shall submit the material type, manufacturer and model number of all water system components to the District prior to final testing.

35. Construction Water

- A. All water furnished by District shall be considered temporary construction water until such time that the water system improvement passes all tests and is accepted into the District and the applicant signs up for permanent service and pays all fees.
- B. Construction water shall be obtained from the District only at the point(s) designated by the District and a refundable deposit for each meter will be required.
- C. Contractors are prohibited from operating main line gate valves or fire hydrants on the District system.
- D. Acquisition of water through appropriation at unmetered fire hydrants or other facilities is a violation of District Ordinance. Use of construction water from sources other than the District Water System must be approved by the District.

HUMBOLDT COMMUNITY SERVICES DISTRICT
DESIGN AND CONSTRUCTION STANDARDS

- E. Where curb and gutter improvements are required, no individual water services to be used for temporary construction water shall be set until curb and gutter construction is completed. All meter sets shall be set into Contractor provided meter boxes per District standards.

HUMBOLDT COMMUNITY SERVICES DISTRICT
GENERAL CONSTRUCTION NOTES

VI. GENERAL CONSTRUCTION NOTES

1. All material, workmanship and construction details shall conform to the District Water and Sewer Design and Construction Standards including all addenda, standard plan revisions and special provisions.
2. The construction contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property. This requirement shall be made to apply continuously and not be limited to normal working hours; and construction Contractor shall agree to defend, indemnify and hold District and District Engineer harmless from any and all liability, excepting liability arising from the sole negligence of the design professional or District.
3. The Contractor is responsible for contacting Underground Service Alert (811), in advance, of all applicable excavations in accordance with the law.
4. The contractor shall secure a trench permit from the California Division of Industrial Safety prior to excavating any trench over 5 feet in depth.
5. The contractor shall provide all the necessary equipment, labor and material required for sheeting, shoring and bracing for the protection of life and limb which shall conform to the industrial safety order. Nothing in these specifications shall be constituted to impose tort liability on the District.
6. The contractor shall coordinate all water and sewer main connection work with the District, (707) 443-4558, and shall give proper notice.
7. **Only Humboldt Community Services District Personnel shall operate valves on existing water mains or water services.**
8. All trenching, backfill and resurfacing required for installation of water system and sewer system facilities shall be per District standard details and County encroachment permit requirements.
9. Minimum depth of cover from finished grade for water mains shall be 36".
10. 4" and 10" diameter main must be specifically approved by the General Manager.
11. 2" through 16" main line valves shall be resilient seat wedge gate. 18" or larger mainline valves shall be butterfly valves.

HUMBOLDT COMMUNITY SERVICES DISTRICT
GENERAL CONSTRUCTION NOTES

12. Blow off valves shall be a 2" gate valve with square operating nut.
13. No. 12 coated copper wire shall be laid on top of and along entire length of all non-metallic mains and shall be extended to the surface at all valve locations, blow-offs, meter boxes, manholes, and cleanouts sufficiently for locator equipment to be attached. Tracer wire shall be installed on all services not perpendicular to the main. Fasten the wire to the top of the pipe so as not to be displaced by backfilling procedure (one method of accomplishing this is to affix the wire to the top of the pipe with duct tape at approximately 10 feet intervals).
14. Water mains to be constructed within 10' of sewer pipe require special installation and design must be specifically approved by the General Manager.
15. Private water and sewer service laterals beyond the public right of way shall conform to Section 1108 of the Uniform Plumbing Code including; (a) the bottom of the water pipe, at all points, shall be at least 12 inches above the top of the sewer lateral; and (b) the water pipe shall be placed on a solid shelf excavated to one side of the common trench with a minimum clear horizontal distance of at least 12 inches from the sewer lateral.
16. There shall be no un-metered connections to the District system, including connection-bypassing meter for testing on-site plumbing or for obtaining construction water. Pressure testing against valves shall not be allowed. When a subdivision water main has been accepted and tied-in the individual curb stops will be locked off with cable ties. Cutting of or tampering with the cable ties will constitute a straight tie-in connection. Such connections will be severed by the District and could result in substantial penalties.
17. Start excavation by exposing end of existing water main to determine its line and grade. Start new main 8-10 feet from and on same line and grade as existing main. Pipe laying shall then be adjusted so depth of new main conforms to existing main.
18. Unless otherwise shown on the plans, 1" water meter services shall be installed in residential developments.
19. All polyethylene water service tubing shall be SDR-9, 200 PSI conforming to ASTM D-2737.
20. For services larger than 1", if either the water service lateral or the on-site building line is already existing within the tolerances specified on the Standard Details, the last one installed shall be on the same line and grade as the existing one.

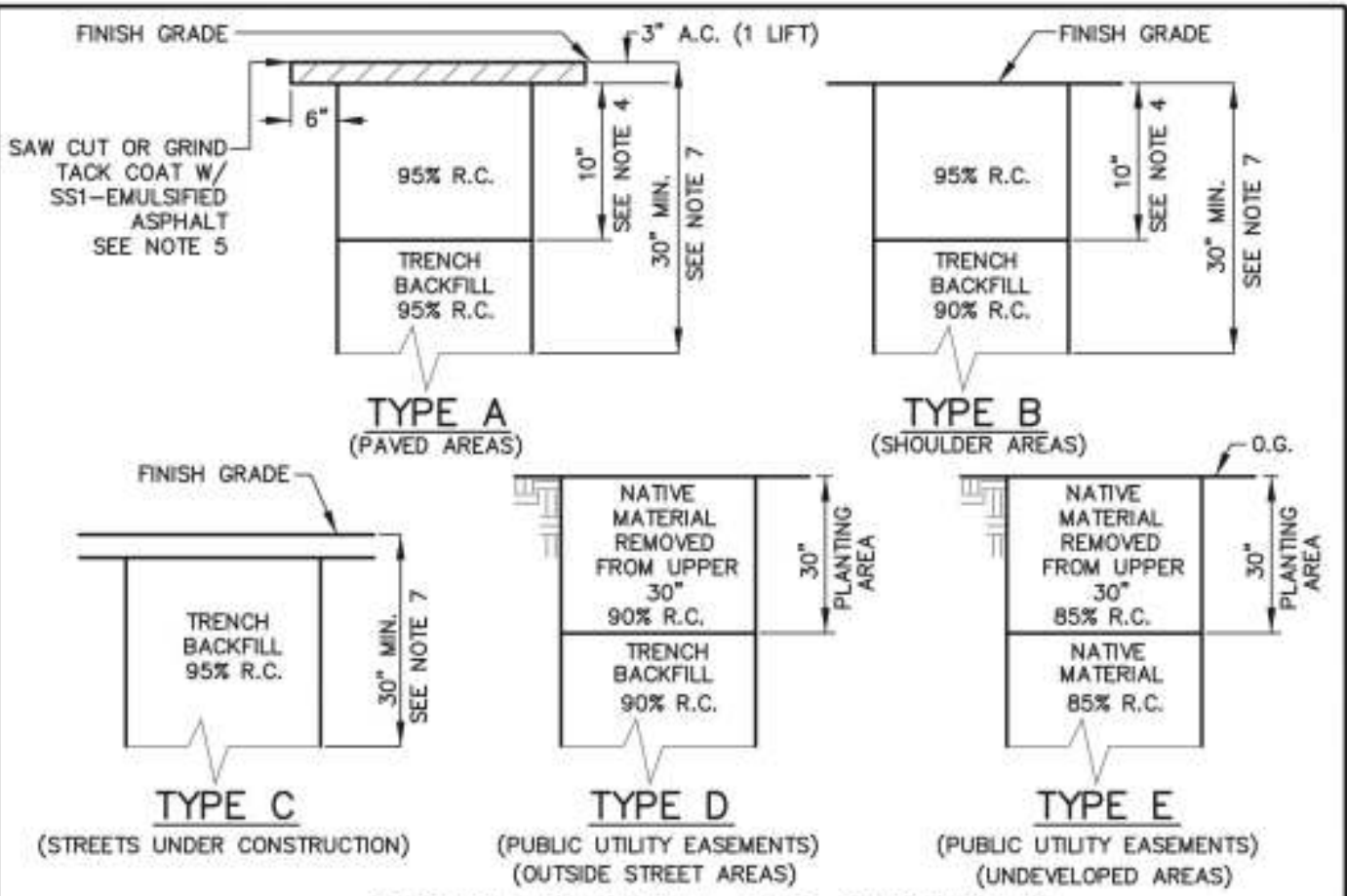
HUMBOLDT COMMUNITY SERVICES DISTRICT
GENERAL CONSTRUCTION NOTES

21. All meter boxes, vaults and pits shall be bedded on a 3" minimum thick, 3/4" drain rock, CL 2 aggregate base, or other clean material with typical sand equivalent of 20 minimum, uncontaminated by native soil, against compacted or undisturbed base. The gravel bed shall extend to a 4" minimum beyond all sides of the meter box. Box shall be set flush with top of curb, sidewalk or ground, whichever is applicable. In new subdivisions lot numbers must be noted on inside of meter box lid with a permanent marking pen.
22. Meter boxes shall be located out of traffic loading areas and driveways.
23. Upon application, District will allow the installation of a temporary check valve and water meter on the end of the existing main for construction water.
24. When a connection is required to an existing water main, the contractor shall provide all excavation, shoring, backfill and trench resurfacing. Where the connection is to be a "hot tap", the District shall make the tap, at Developer expense. No hot tap shall be made within 12 inches of the nominal diameter of a pipe joint (i.e.: beyond the pipe bell joint taper). If necessary the joint shall be removed, and the proposed hot tap shall be replaced with a "cut-in" tee. When a "cut-in" tee and valve(s) assembly is required on the plans, the contractor shall provide and install the entire assembly (including valves), and any other hardware necessary under District inspection, and shall provide all other work and materials necessary to complete the installation to District standards.
25. Upon completion of construction, final connection will be made by the contractor at the developer's expense under inspection by the District's inspector, unless otherwise specified on the plans.
26. After a street has been overlaid, all utility structures will be marked in white paint or "dimple" asphalt before the close of that workday.
27. Within 5 days of paving, all utility structures and boxes will be brought to grade and inspected.
28. In multi-unit commercial complexes where there is a potential in one or more individual units for a District Industrial Wastewater Discharge permit; provisions for separate metering for water and/or sewer may be required.

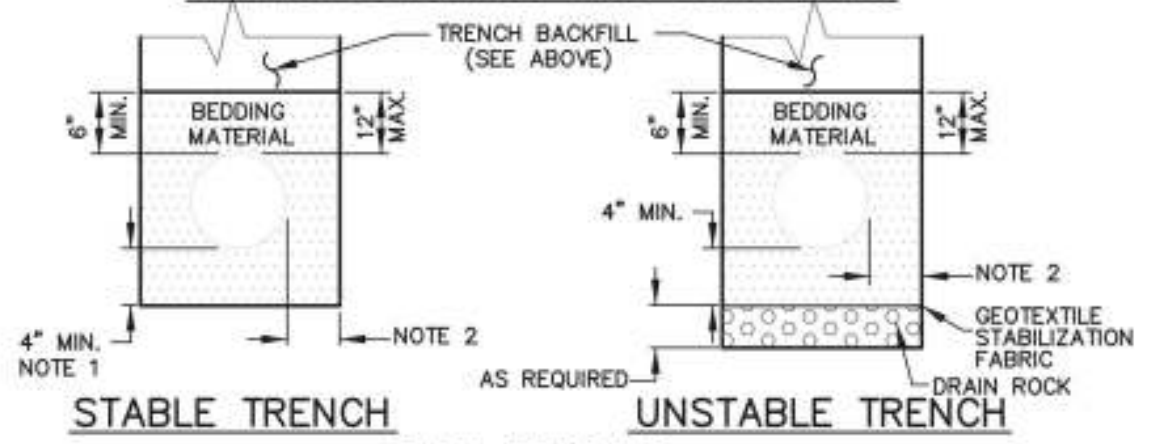
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APPEDIX C
HUMBOLDT COMMUNITY SERVICES DISTRICT
STANDARD DRAWINGS

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TRENCH BACKFILL AND SURFACING



PIPE BEDDING

NOTES:

1. 1/4 PIPE O.D. OR 4" MIN. WHEN EXCAVATION IS IN ROCKY GROUND.
2. PIPE DIAMETER 18" OR LESS: 6" MIN., 9" MAX./PIPE DIA. GREATER THAN 18": 9" MIN., 12" MAX.
3. RELATIVE COMPACTION DESIGNATED R.C.
4. THE MINIMUM STREET STRUCTURAL SECTION SHALL BE 3" A.C. ON 10" A.B. OR MATCH EXISTING PAVEMENT, WHICHEVER IS THICKER, SPECIFIED ON PLANS, OR REQUIRED BY ENCROACHMENT PERMIT.
5. SAW CUT OR GRIND PAVEMENT SIX INCHES FROM EDGE OF TRENCH AFTER TRENCH IS BACKFILLED.
6. MINIMUM PIPE COVER SHALL BE 36" WATER, 42" SEWER FROM TOP OF PIPE.
7. NEW STREETS AND SHOULDER AREAS UNDER CONSTRUCTION SHALL BE COMPACTED TO 95% RELATIVE COMPACTION FOR A MINIMUM DEPTH OF 30" PER CALTRANS SECTION 19-5.03.
8. INSTALL #12 COPPER COATED TRACER WIRE ON/OVER ALL NON-METALLIC MAINS.

HUMBOLDT COMMUNITY SERVICES DISTRICT	WATER AND SEWER STANDARD TRENCH DETAILS	APPROVED DATE: 9/2016 STD. DWG. WS-100A
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I. MATERIAL SPECIFICATIONS:

1. BEDDING MATERIAL:
 - A.) PEA GRAVEL— CONFORMING TO CALTRANS SECTION 68-2.02F, PERMEABLE MATERIAL, CLASS 1, TYPE B.
 - B.) CL 2 AB. — CONFORMING TO CALTRANS SECTION 26-1.02, CLASS 2 AGGREGATE BASE, 3/4" MAXIMUM.
 - C.) PERMEABLE — CONFORMING TO CALTRANS SECTION 68-2.02F, CLASS 2 PERMEABLE MATERIAL.
2. AGGREGATE BASE:
 - A.) CL 2 AB. — CONFORMING TO CALTRANS SECTION 26-1.02, CLASS 2 AGGRIGATE BASE, 3/4" MAXIMUM.
3. DRAIN ROCK:
 - A.) NO. 3 ROCK— SHALL BE A WASHED ROCK OF THE NOMINAL SIZE DESIGNATED AS 1" TO 2".
4. GABION ROCK:
 - A.) GABION ROCK— SHALL BE A WASHED OR NON-WASHED ROCK OF THE NOMINAL SIZE DESIGNATED AS 4" TO 12".
5. NATIVE MATERIAL:
 - A.) NATIVE MATERIAL— NATIVE MATERIAL USED AS BACKFILL SHALL BE FREE OF ORGANIC MATTER, REFUSE OR OTHER UNSATISFACTORY MATERIALS, STONES, OR LUMPS GREATER THAN OR EXCEEDING 3" IN GREATEST DIMENSION.
6. SHALE MATERIAL:
 - A.) SHALE MATERIAL— SHALE MATERIAL SHALL MEET THE QUALITY REQUIREMENTS FOR CL 2 AB AND CONTAIN ENOUGH FINE MATERIALS TO BE ABLE TO BE COMPACTED TO 95% RC IN A TIGHT SUSTAINABLE MATRIX.

II. COMPACTION REQUIREMENTS:

1. BEDDING MATERIAL:
 - A.) PEA GRAVEL SHALL EITHER BE HAND TAMPED UNDER AND AT THE SIDES OF THE PIPES IN LIFTS NOT GREATER THAN 6" OR SHAPED AND COMPACTED PRIOR TO PIPE INSTALLATION.
 - B.) CL 2 AB SHALL MEET THE ABOVE REQUIREMENTS AND SHALL ADDITIONALLY BE COMPACTED UNDER THE PIPE TO 90% RC AND UP TO THE SPRING LINE OF THE PIPE TO 90% RC IN TWO SEPERATE LIFTS RESULTING IN A FIRM UNYIELDING BEDDED TRENCH. JETTING SHALL NOT BE ALLOWED.
2. AGGREGATE BASE:
 - A.) AGGREGATE BASE SHALL BE COMPACTED WITH MECHANICAL HAND OPERATED, OR EQUIPMENT MOUNTED OR TOWED METHODS TO ACHIEVE THE REQUIRED COMPACTION. IN ANY EVENT, COMPACTION METHODS SHALL NOT DAMAGE THE PIPE, EXCEED THE LOADING CAPACITY OF THE PIPE, OR RESULT IN A CHANGE TO THE DESIGN PIPE SLOPE REQUIRED OR DEFLECTION UNITS. JETTING SHALL NOT BE ALLOWED.
3. DRAIN ROCK:
 - A.) DRAIN ROCK SHALL BE CONSOLIDATED WITH A SURFACE VIBRATOR.
4. SHALE MATERIAL:
 - A.) SHALE SHALL MEET THE COMPACTION REQUIREMENTS FOR CL 2 AB.
5. NATIVE MATERIAL:
 - A.) NATIVE MATERIAL COMPACTED TO 90% RC SHALL MEET THE COMPACTION REQUIREMENTS OF CL 2 AB. NATIVE MATERIAL COMPACTED TO LESS THAN 90% RC MAY BE COMPACTED BY WHEEL ROLLING.

**HUMBOLDT COMMUNITY
SERVICES DISTRICT**

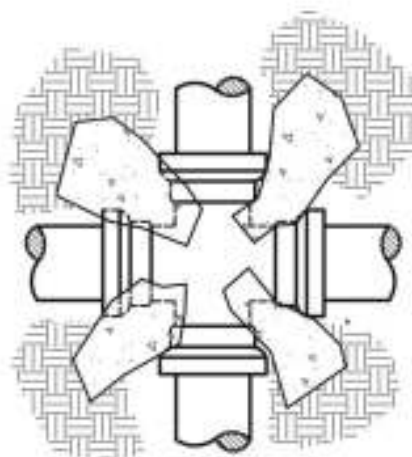
**WATER AND SEWER STANDARD
TRENCH DETAIL NOTES**

APPROVED DATE: 9/2016
STD. DWG.
WS-100B

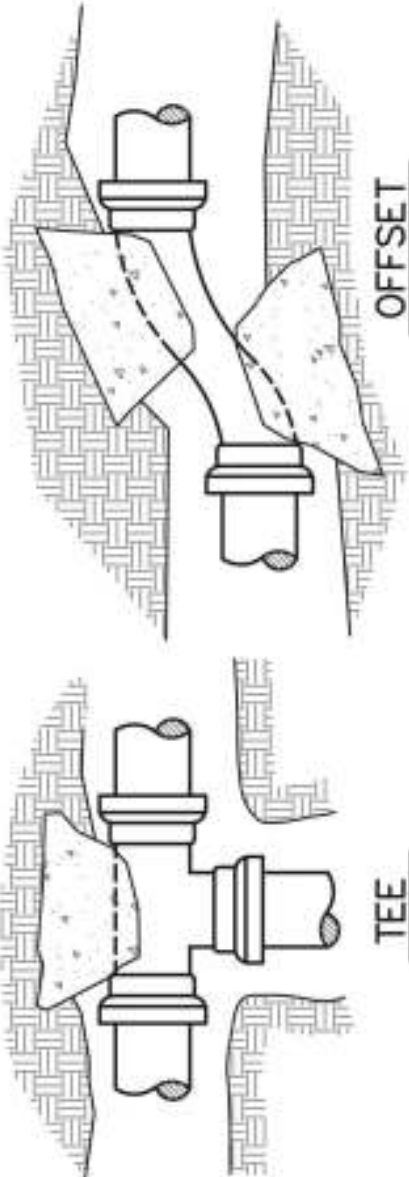


BEND

TYPICAL CONC. BLOCKING SHOWN IN PERSPECTIVE



CROSS



TEE

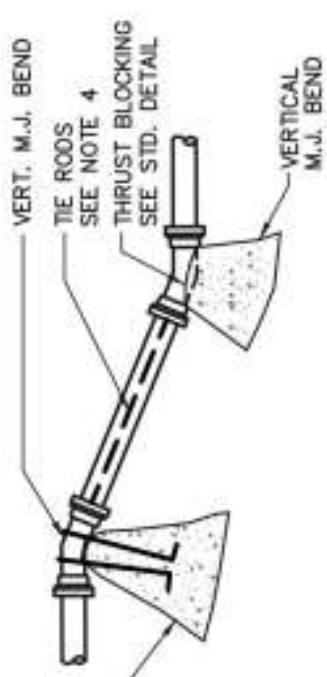
OFFSET

NOTES:

1. SAFE BEARING LOAD OF SOIL FOR HORIZONTAL THRUST SHALL NOT BE EXCEEDED.
2. CONCRETE BLOCKING, CAST-IN-PLACE, TO EXTEND FROM BELLS OF FITTINGS TO UNDISTURBED SOIL AND ENTIRE BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
3. IN USING THE THRUST BLOCKING TABLE BELOW, ASSUME 2000 P.S.F. BEARING CAPACITY UNLESS OTHERWISE SHOWN ON THE PLANS. THE DESIGN ENGINEER SHALL SPECIFY THRUST BLOCKING REQUIREMENTS FOR ALL OTHER SOIL BEARING CONDITIONS.
4. FOR PLUGGED LEG(S) OF TEE OR CROSS, USE HARNESS TYPE BLOCKING AS SHOWN ON THE STD DETAILS AND CONCRETE BLOCKING INDICATED IN THE TABLE BELOW.

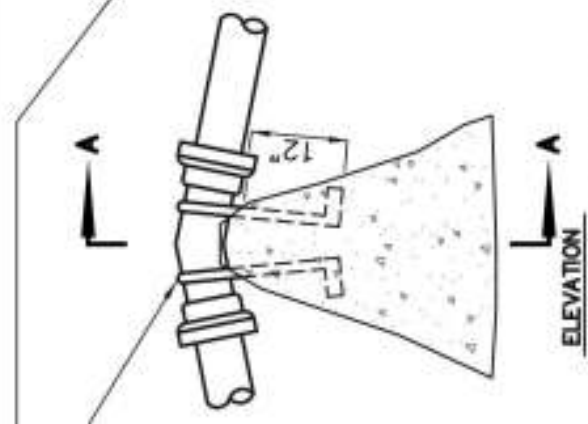
MIN REQ'D BEARING AREA IN SF PER 100 P.S.I. TEST PRESSURE *						
	SOIL BRG CAPACITY	HARNESS BLOCKS	TEES & DEAD ENDS	90° BENDS	45° BENDS	22-1/2° BENDS
4"	1000	2	2	3	2	1
	2000	1	1	1.5	1	0.5
6"	1000	4	4	6	3	2
	2000	2	2	3	2	1
8"	1000	7	7	10	5	3
	2000	4	4	5	3	2
10"	1000	12	12	17	10	5
	2000	6	6	8.5	5	2.5
12"	1000	16	16	22	12	6
	2000	8	8	11	6	3

* MULTIPLY NO. IN TABLE BY TEST PRESSURE & DIVIDE BY 100

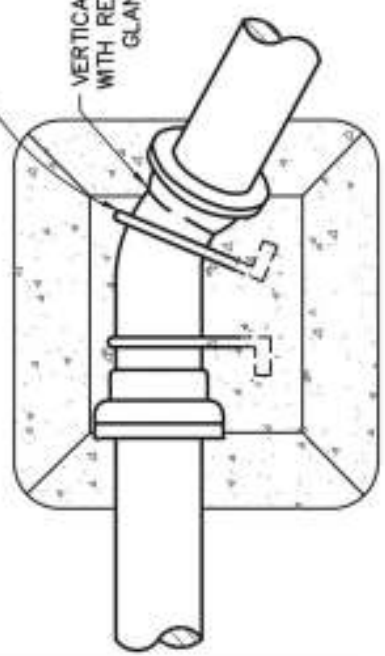
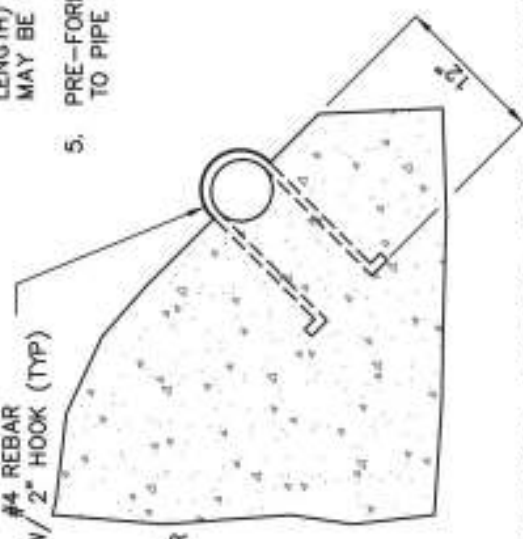


NOTES:

1. ALL EXPOSED REBAR SHALL BE PAINTED WITH BITUMASTIC OR APPROVED EQUAL
2. CONCRETE ANCHOR BLOCKS SHALL BE INSTALLED BY THE CONTRACTOR TO WITHSTAND A THRUST PRODUCED BY THE TEST PRESSURE PLUS 50 P.S.I. MINIMUM LOADING FOR THE REBAR ANCHOR.
3. USE MJ RETAINER GLANDS AT ALL FITTINGS.
4. FOR PVC PIPE, TIE RODS (THREADED FULL LENGTH) BETWEEN FITTINGS (MIN 2 REQ'D) MAY BE USED IN LIEU OF RETAINING GLANDS.
5. PRE-FORMED #4 REBAR SHALL CONFORM TO PIPE DIAMETER.



SECTION A-A
TYPICAL CONCRETE ANCHOR BLOCK FOR VERTICAL BEND

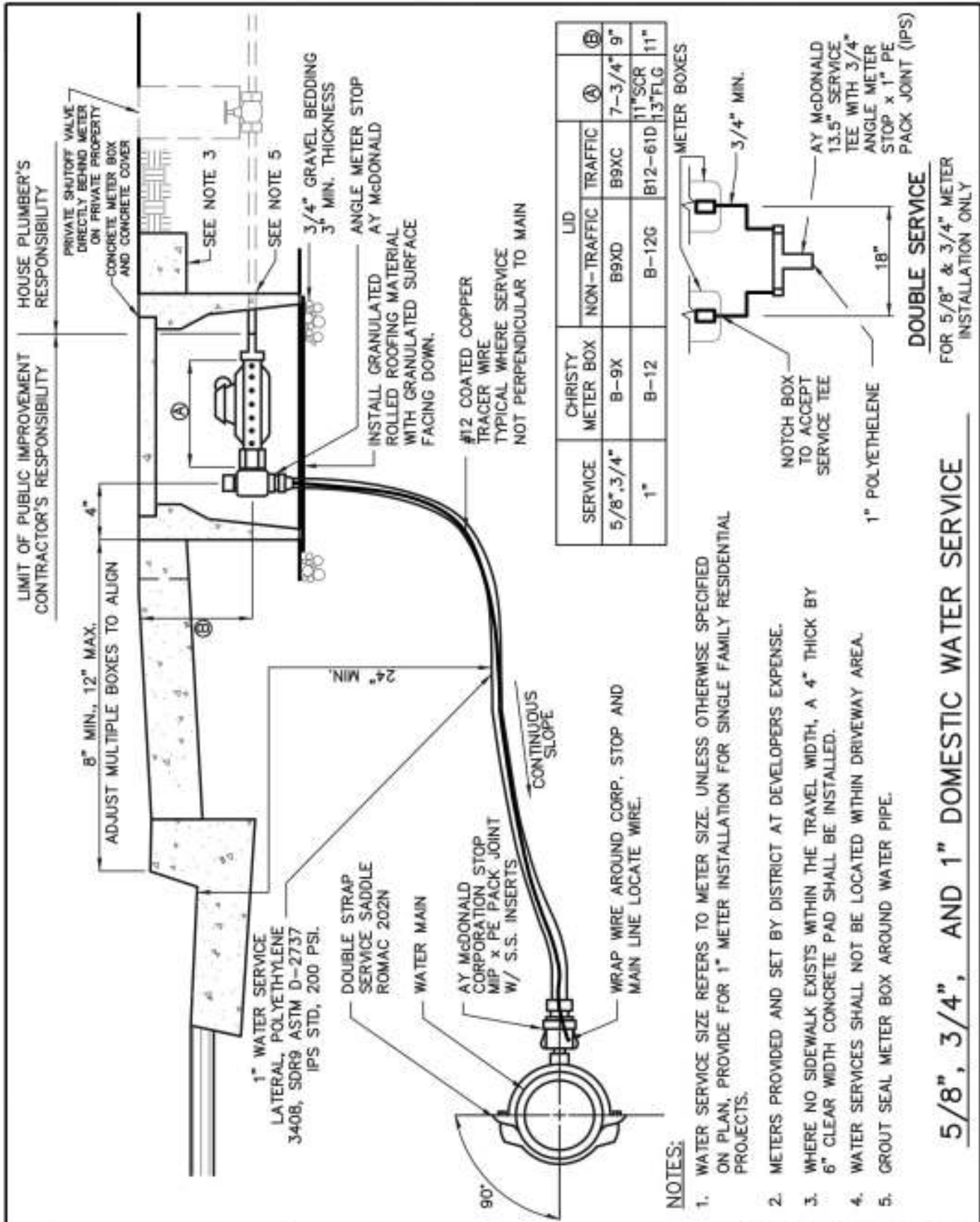


TYPICAL CONCRETE ANCHOR BLOCK FOR COMBINATION HORIZONTAL - VERTICAL BEND

HUMBOLDT COMMUNITY SERVICES DISTRICT

CONCRETE ANCHOR BLOCKS FOR VERTICAL BENDS

APPROVED DATE: 9/2016
 STD. DWG.
WS-102



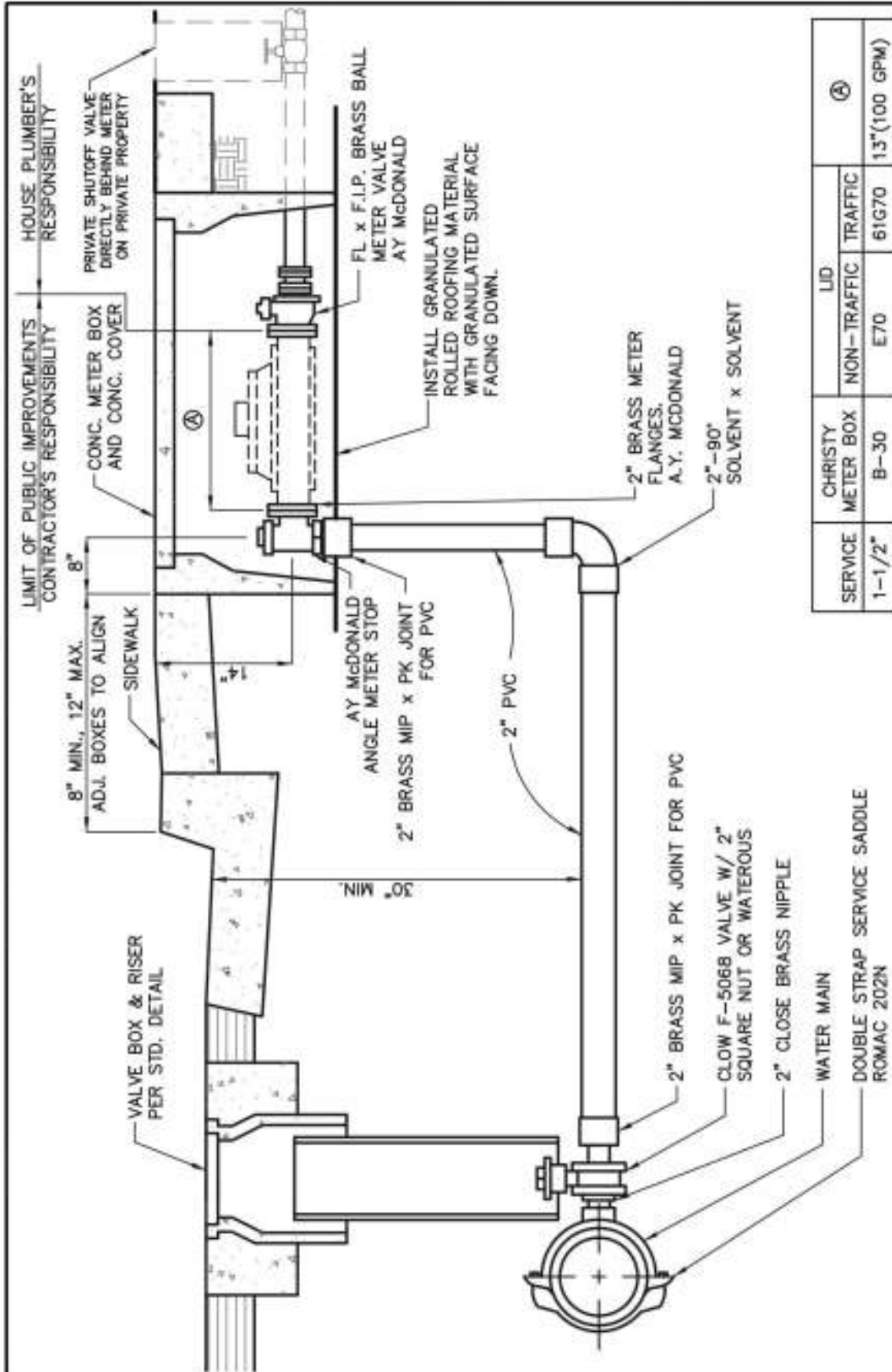
NOTES:

1. WATER SERVICE SIZE REFERS TO METER SIZE. UNLESS OTHERWISE SPECIFIED ON PLAN, PROVIDE FOR 1" METER INSTALLATION FOR SINGLE FAMILY RESIDENTIAL PROJECTS.
2. METERS PROVIDED AND SET BY DISTRICT AT DEVELOPERS EXPENSE.
3. WHERE NO SIDEWALK EXISTS WITHIN THE TRAVEL WIDTH, A 4" THICK BY 6" CLEAR WIDTH CONCRETE PAD SHALL BE INSTALLED.
4. WATER SERVICES SHALL NOT BE LOCATED WITHIN DRIVEWAY AREA.
5. GROUT SEAL METER BOX AROUND WATER PIPE.

HUMBOLDT COMMUNITY SERVICES DISTRICT

5/8", 3/4", AND 1" DOMESTIC WATER SERVICE

APPROVED DATE: 9/2016
STD. DWG.
WS-104



SERVICE	CHRISTY	LID	TRAFFIC	ⓐ
	METER BOX	NON-TRAFFIC		
1-1/2"	B-30	E70	61G70	13"(100 GPM)

NOTES:
 1. METERS PROVIDED AND SET BY DISTRICT AT DEVELOPER'S EXPENSE.

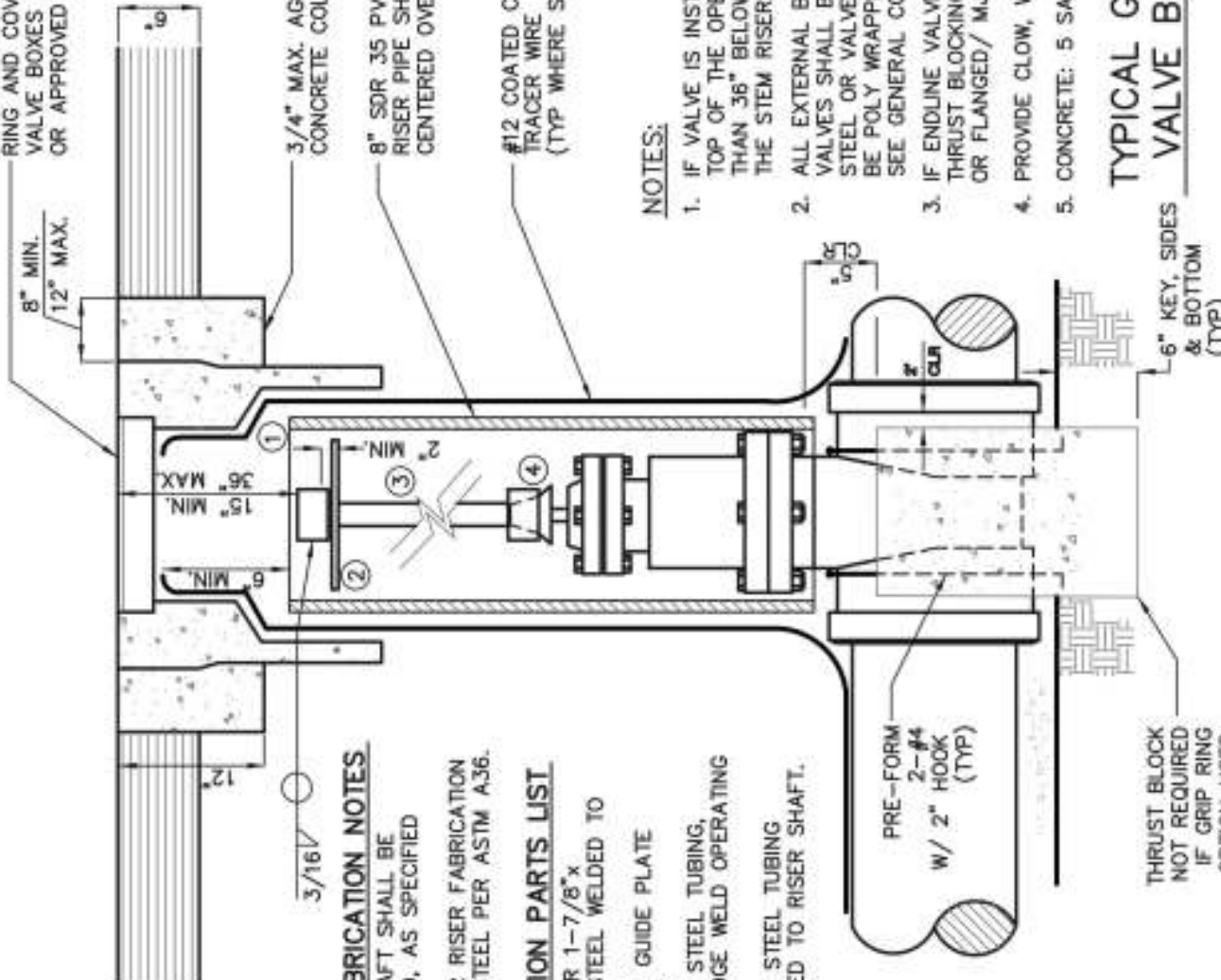
HUMBOLDT COMMUNITY SERVICES DISTRICT

1-1/2" DOMESTIC WATER SERVICE

APPROVED DATE: 9/2016
 STD. DWG.
WS-105

1-1/2" DOMESTIC WATER SERVICE

PRECAST VALVE BOX SET FLUSH WITH STREET SURFACE WITH CAST IRON RING AND COVER MARKED "WATER". VALVE BOXES TO BE CHRISTY G-5 OR APPROVED EQUAL.



STEM EXTENTION FABRICATION NOTES

1. ALL WELDS TO RISER SHAFT SHALL BE FILLET WELD ALL AROUND, AS SPECIFIED BELOW.
2. ALL STEEL REQUIRED FOR RISER FABRICATION SHALL BE STRUCTURAL STEEL PER ASTM A36.

VALVE STEM EXTENTION PARTS LIST

- ① VALVE OPERATING NUT OR 1-7/8" x 1-7/8" x 2" HIGH, SOLID STEEL WELDED TO RISER SHAFT.
- ② 1/8" THK. x 7-1/2" DIA. GUIDE PLATE WELDED TO RISER SHAFT.
- ③ 1-1/2" x 3/16" SQUARE STEEL TUBING, LENGTH AS REQUIRED. EDGE WELD OPERATING NUT AT BOTH ENDS.
- ④ 2-1/2" x 3/16" SQUARE STEEL TUBING 2-1/2" IN LENGTH WELDED TO RISER SHAFT.

NOTES:

1. IF VALVE IS INSTALLED SO THAT THE TOP OF THE OPERATING NUT IS LESS THAN 36" BELOW FINISHED GRADE, THE STEM RISER IS NOT REQUIRED.
2. ALL EXTERNAL BOLTS AND NUTS ON VALVES SHALL BE 304 STAINLESS STEEL OR VALVE ASSEMBLY SHALL BE POLY WRAPPED. SEE GENERAL CONSTRUCTION NOTES.
3. IF ENDLINE VALVE, THEN PROVIDE ADEQUET THRUST BLOCKING & RESTRAINT OR FLANGED/ MJ CONNECTION.
4. PROVIDE CLOW, WATEROUS, OR AWK VALVE.
5. CONCRETE: 5 SACK, 2500 psi.

TYPICAL GATE VALVE AND VALVE BOX WITH RISER

6" KEY, SIDES & BOTTOM (TYP)

THRUST BLOCK NOT REQUIRED IF GRIP RING OPTION USED.

PRE-FORM 2-#4 W/ 2" HOOK (TYP)

HUMBOLDT COMMUNITY SERVICES DISTRICT

TYPICAL GATE VALVE AND VALVE BOX WITH RISER

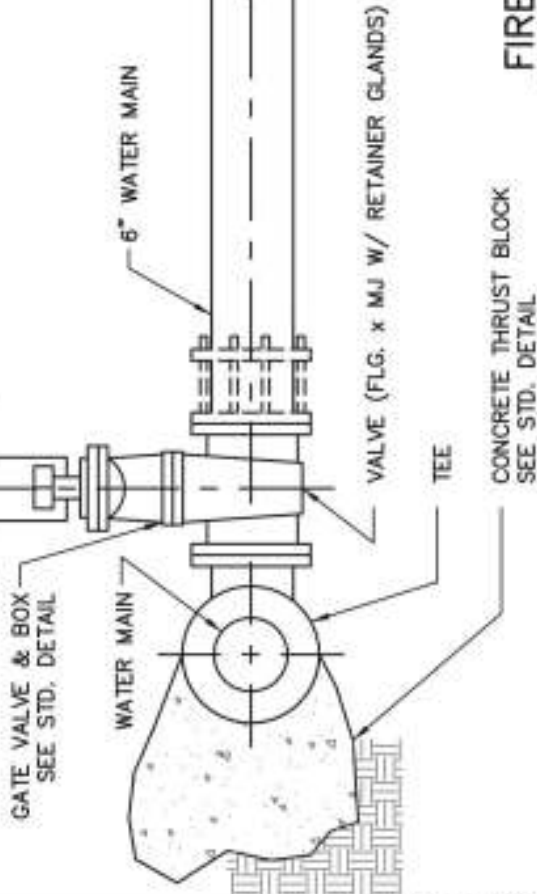
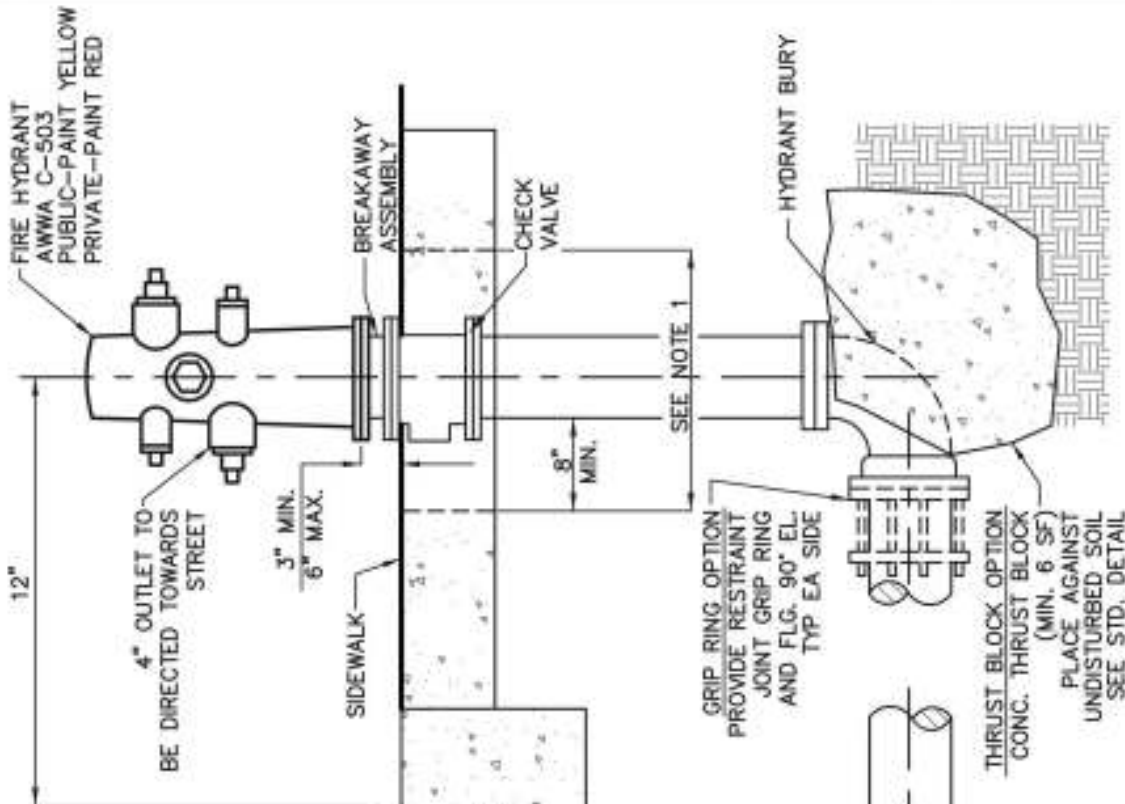
APPROVED DATE: 9/2016
STD. DWG.
WS-112

HYDRANT SCHEDULE (WET BARREL)

CLOW MODEL 76 (W/ 5-1/4" MAIN VALVES)
 PUMP THREADS TO MATCH FIRE DEPARTMENT
 PROVIDE 1-4" AND 2-2 1/2" OUTLETS
 W/ CLOW CHECK VALVE MODEL LBIW 400A

NOTES:

1. WHERE NO SIDEWALK EXISTS OR WHERE F.H. IS INSTALLED IN PLANTER STRIP, A 6" THK. x 2' SQ. CONCRETE PAD SHALL BE INSTALLED.
2. VERIFY FIRE PROTECTION REQUIREMENTS WITH FIRE DEPARTMENT.
3. INSTALL 10' MIN. FROM DRIVEWAY.
4. PROVIDE GRIP RINGS OR THRUST BLOCKING AT CONTRACTOR'S OPTION.



FIRE HYDRANT

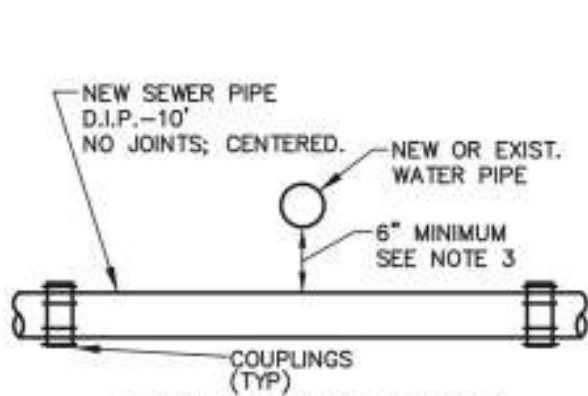
HUMBOLDT COMMUNITY SERVICES DISTRICT

FIRE HYDRANT

APPROVED DATE: 9/2016

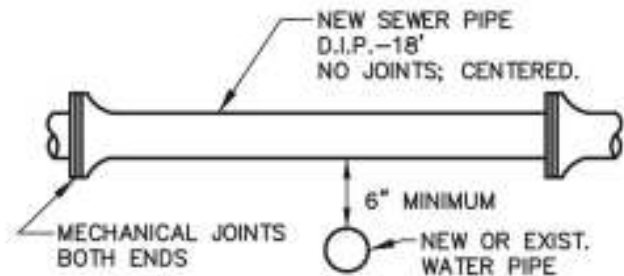
STD. DWG.

WS-113



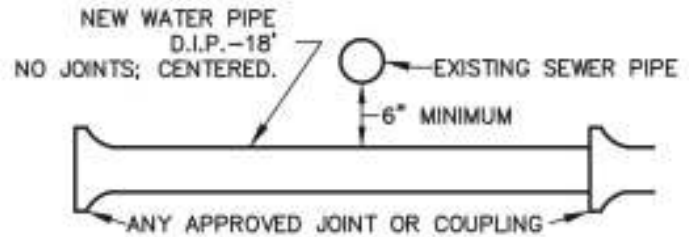
**NEW SEWER UNDER
NEW OR EXISTING WATER**

CASE 1



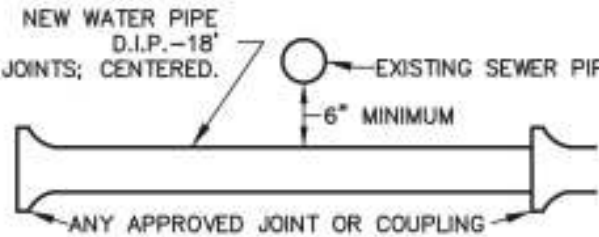
**NEW SEWER OVER
NEW OR EXISTING WATER**

CASE 2



**NEW WATER UNDER
EXISTING SEWER**

CASE 3

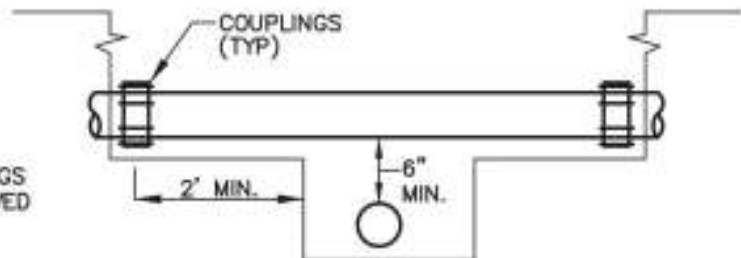


**NEW WATER OVER
EXISTING SEWER**

CASE 4

NOTES

1. THIS STANDARD APPLIES TO PIPES UP TO AND INCLUDING 16" DIAMETER. ALL CROSSINGS OF LARGER DIAMETER SHALL BE AS APPROVED BY THE DISTRICT.
2. ALL NEW DUCTILE IRON SHALL BE WRAPPED IN POLYETHYLENE FILM IN TUBE FORM PER DISTRICT CONSTRUCTION SPECIFICATIONS.
3. WHERE SEWER CROSSES BELOW A WATER MAIN, WITH 1' OR MORE OF VERTICAL CLEARANCE, NO SPECIAL INSTALLATION IS REQUIRED.
4. NEW PIPE UNDER EXISTING-CASE 5 SHALL BE USED WHEN THE EXISTING PIPE HAS A JOINT OVER OR WITHIN 2' OF THE NEW TRENCH.
5. ANY PIPE-PIPE CROSSING WITH LESS THAN 6" VERTICAL CLEARANCE SHALL NOT BE INSTALLED WITHOUT APPROVAL OF THE DISTRICT.
6. WATER MAIN LOWERING PER STD. DETAIL.
7. SEE ENGINEER'S APPROVED LIST FOR APPROVED COUPLINGS.



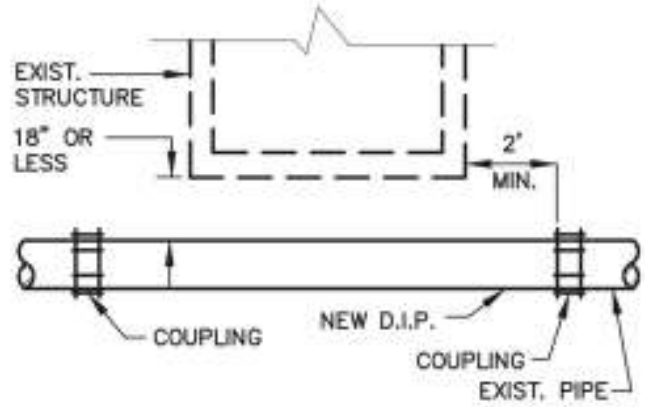
NEW PIPE UNDER EXISTING

CASE 5 - SEE NOTE 4

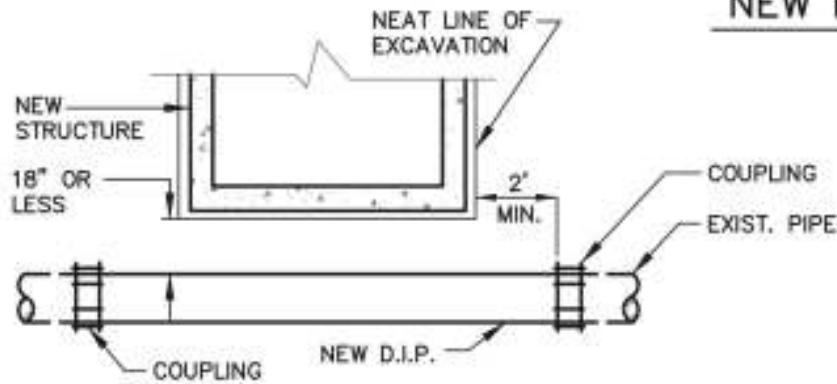
**HUMBOLDT COMMUNITY
SERVICES DISTRICT**

**PIPE - PIPE
CROSSING DETAIL**

APPROVED DATE: 9/2016
STD. DWG.
WS-120



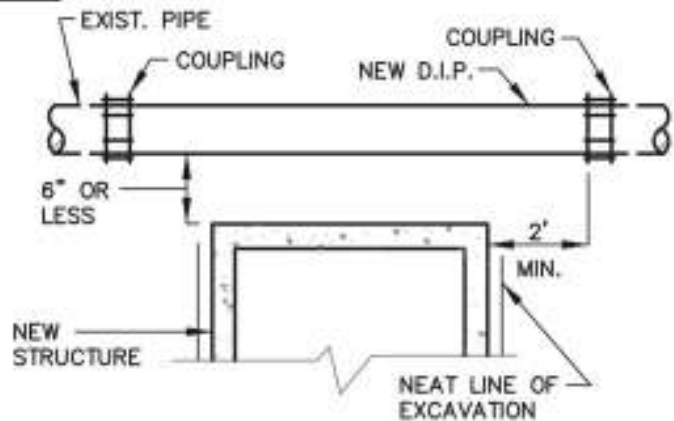
**NEW PIPE UNDER EXISTING
TYPE A**



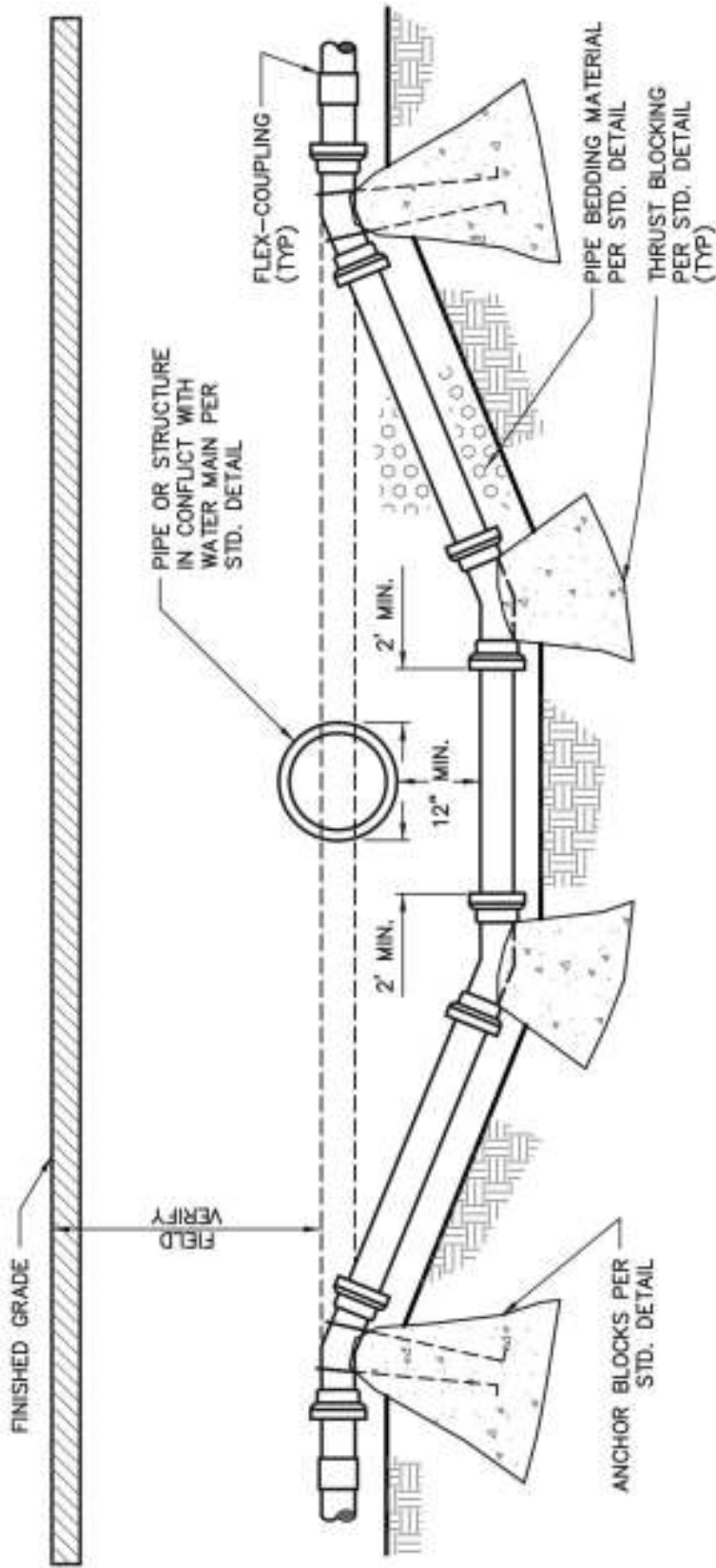
**NEW STRUCTURE OVER EXISTING
TYPE B**

NOTES:

1. THIS STD. APPLIES TO PIPES UP TO AND INCLUDING 16" DIAMETER. ALL CROSSINGS INVOLVING PIPES OF LARGER DIAMETER SHALL BE AS APPROVED BY THE DISTRICT.
2. WHEN PIPES CROSS WITHIN THE DIMENSIONS SHOWN, A NEW DUCTILE IRON PIPE SECTION SHALL BE INSTALLED AS DETAILED.
3. ALL DUCTILE IRON PIPE SHALL BE ENCASED IN POLYETHYLENE FILM IN TUBE FORM.
4. ANY TYPE "A" INSTALLATION REQUIRING MORE THAN ONE LENGTH OF PIPE SHALL BE ENCASED PER STD. DETAIL
5. SEE ENGINEER'S APPROVED LIST FOR APPROVED COUPLINGS.



**NEW STRUCTURE UNDER EXIST.
TYPE C**



NOTES:

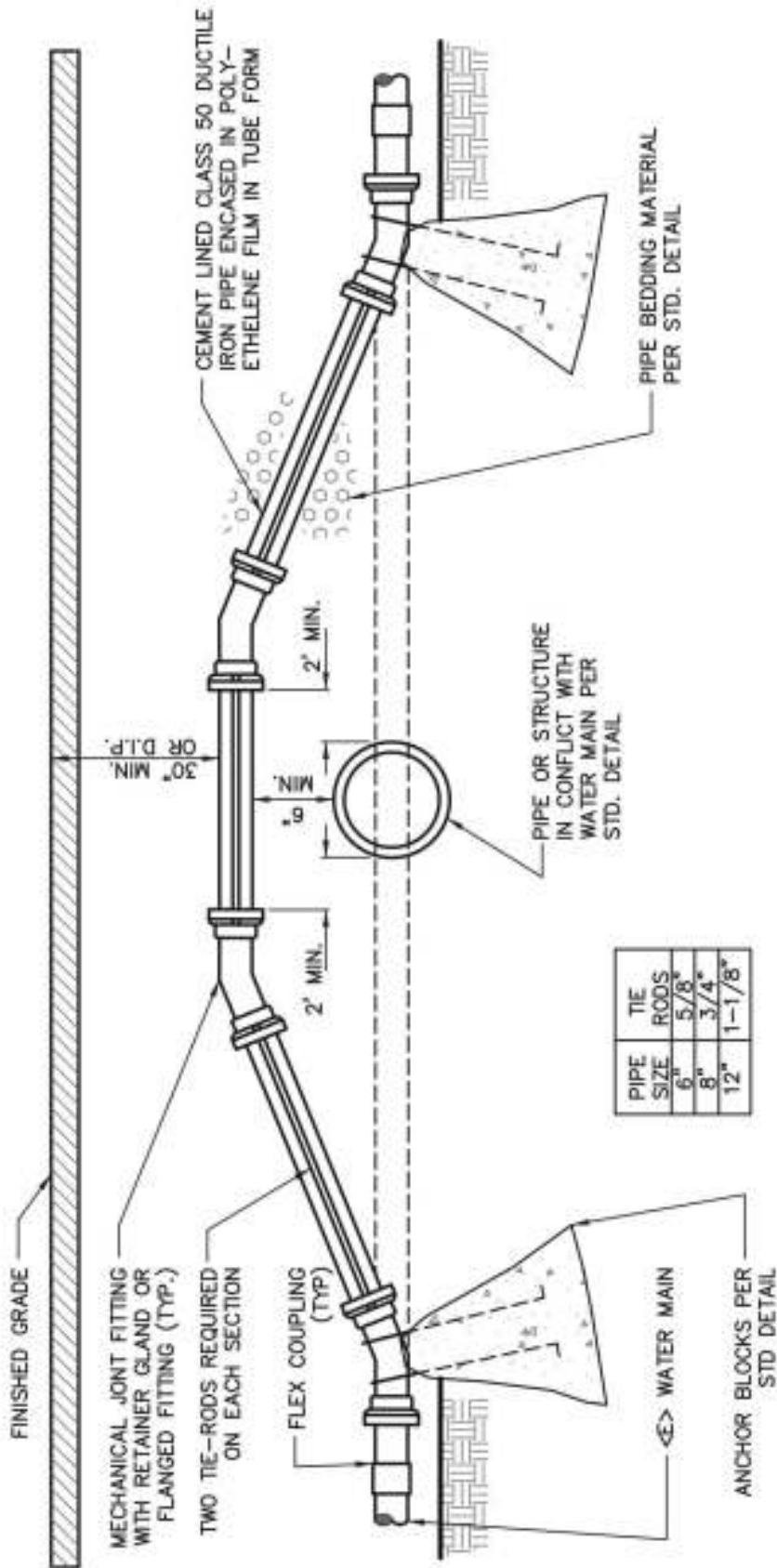
1. ALL PIPE & FITTINGS SHALL BE MJ DIP W/ RETAINER GLANDS OR PVC WITH GRIP RING OPTION.
2. ALL BENDS SHALL BE 45° OR 22-1/2° FITTINGS.
3. ALTERNATE DESIGN SHALL BE REVIEWED AND APPROVED BY DISTRICT.

TYPICAL WATER MAIN LOWERING DETAIL

HUMBOLDT COMMUNITY SERVICES DISTRICT

TYPICAL WATER MAIN LOWERING DETAIL

APPROVED DATE: 9/2016
 STD. DWG.
WS-122



NOTES:

1. ALL PIPE & FITTINGS SHALL BE MJ DIP W/ RETAINER GLANDS OR PVC IF GRIP RING OPTION USED.
2. ALL BENDS SHALL BE 45° OR 22-1/2° FITTINGS.
3. TO BE USED ONLY WITH THE APPROVAL OF THE DISTRICT.
4. CL. 52 DUCTILE IRON REQUIRED WHERE COVER IS LESS THAN THAT REQUIRED BY THE GENERAL CONSTRUCTION NOTES.
5. ALTERNATE DESIGN TO BE REVIEWED AND APPROVED BY THE DISTRICT.

TYPICAL WATER MAIN INSTALLATION OVER STRUCTURE

HUMBOLDT COMMUNITY SERVICES DISTRICT

TYPICAL WATER MAIN INSTALLATION OVER STRUCTURE

APPROVED DATE: 9/2016
STD. DWG.
WS-123

**THESE DRAWINGS CAN BE FOUND IN THE SEPARATE
ELECTRONIC PDF ON THE GSD WEBSITE**

**DRAWINGS
LOCATION SPECIFIC HYDRANT
REPLACEMENT SHEETS**