

ORIGINAL

CONSTRUCTION RESPONSIBILITY AND REIMBURSEMENT AGREEMENT BETWEEN THE COUNTY OF EL DORADO AND THE EL DORADO IRRIGATION DISTRICT

FOR THE GREEN VALLEY ROAD AT TENNESSEE CREEK - BRIDGE REPLACEMENT PROJECT 77109

AGMT 09-52686

The County of El Dorado, a political subdivision of the State of California (hereinafter referred to as "County"), and the El Dorado Irrigation District, a special district created pursuant to State law (hereinafter referred to as "EID"), hereby agree to the following Construction Responsibility and Reimbursement Agreement (hereinafter referred to as "Agreement") terms set forth below.

El Dorado County Department of Transportation is replacing the Tennessee Creek Bridge, in addition to realigning and widening Green Valley Road between Kenworth Drive and Rose Springs Lane (hereinafter referred to as "Project"). The work will require relocating water facilities located in the new alignment.

The existing twenty (20) inch water line to be abandoned will be replaced with approximately nine hundred and fifty (950) feet of a new twenty (20) inch waterline to be placed within the realigned roadway. The existing twenty (20) inch water line waterline and associated structures will be removed when required due to roadway grade conflicts, but will otherwise be abandoned in place.

Details of the above scope of waterline work are shown on Exhibit A, marked "Gold Hill Intertie Relocation," incorporated herein and made by reference a part hereof. The existing twenty (20) inch waterline and appurtenances will be abandoned from 'GVR-2' station 11+64, offset 10.8 feet right, to 'GVR-1' station 21+88.49, offset 51.05 feet left, and consists of approximately eight hundred and twenty six (826) feet of in-place abandonment. This waterline abandonment will be replaced with approximately nine hundred and fifty (950) feet of new twenty (20) inch waterline and appurtenances from 'GVR-2' station 11+64, offset 10.8 feet right, to 'GVR-1' station 21+88.49, offset 51.05 feet left.

The existing twenty (20) inch waterline must remain in service during construction; shut down of the existing waterline for purposes of tie-in to the new waterline will require prior approval by EID.

EID has requested that County include the installation of new EID facilities, as detailed in Exhibit A hereto, in County's construction bid package, award documents, and construction contract for the Project and County has agreed to do so under the terms and conditions of this Agreement.

A. LIABILITY FOR WORK

Cost for facilities shall be allocated between EID and County as follows:

1. County and EID have agreed to the abandonment, relocation, and installation of EID facilities as shown in County's improvement plans on sheets W-1 through W-7, namely EID water line as County Project No. 77109 and said sheets are incorporated by reference herein as Exhibit C, and as described in Exhibit A, and as further described herein (hereinafter cumulatively referred to as the "EID Relocation Work"). Except as

provided in Section B-8 and Sections C-1 and C-2 hereinafter, County and EID agree that EID shall be responsible for a proportionate share (77.5%) of the actual costs associated with the EID Relocation Work affected by County's construction project, as expressly identified in Exhibit B marked "Gold Hill Intertie Relocation Cost Estimate," incorporated herein and made by reference a part hereof. All costs for the abandonment and relocation of the EID facilities (exclusive of right of way) shall be calculated based on the following formulae (See Exhibit B):

- a) There is an existing twenty (20) inch water line facility within the project area, portions of which conflict with the proposed road improvements. EID has prior land rights for a portion of the facility such that County is responsible for a portion of the cost of relocating the water line that is in conflict. Exhibit B titled "Gold Hill Intertie Relocation Cost Estimate" identifies the costs related to the water line relocation.
 - b) The basis for the relocation cost distribution is the length of pipe to be relocated in existing EID waterline easement (186-foot County share) versus the length of pipe within County roadway right of way (640-foot EID share) shown in Exhibit A. EID is responsible for seventy seven and a half percent (77.5%) of the relocation cost and County is responsible for twenty-two and a half percent (22.5%) of the relocation cost.
 - c) County cost for item a) above is estimated to be Sixty Nine Thousand, Six Hundred Seventy Three Dollars and Forty Five Cents (\$69,673.45), including a 10% contingency, as shown on Exhibit B herein.
 - d) The EID cost for item a) above is estimated to be Two Hundred Thirty Nine Thousand Nine Hundred Eighty Six Dollars and Thirty One Cents (\$239,986.31), including a 10% contingency, as shown on Exhibit B herein.
 - e) The total cost for item a) above is estimated to be Three Hundred Nine Thousand Six Hundred Fifty Nine Dollars and Seventy Six Cents (\$309,659.76), including a 10% contingency, as shown on Exhibit B herein.
2. The Project also includes the relocation of an existing six (6) inch waterline, which shall be completed at sole cost of County.
 3. As the work progresses, County shall submit invoices to EID, no more frequently than monthly, with supporting documentation indicating the percentage of the work completed since the previous submittal and the amount of costs then due and owing. The invoices submitted by County to EID will include an accounting of any amount retained by County from the contractor. EID will not be liable for payment of any retention amount shown on the invoices until County pays retention either to the contractor or subcontractor(s) or into an escrow account as provided under the Public Contract Code, whichever occurs first. EID shall make payment of the amount indicated on the invoice within thirty (30) calendar days of receiving each invoice, unless an invoice is challenged in accordance with subsection (3) herein below, in which case EID shall make payment of that portion of the invoice which is not in dispute within thirty (30) calendar days of receiving the invoice.

4. In the event that EID challenges any portion of, or any line item shown on, the invoice from County, then EID shall notify County of such challenge, the basis therefor, and provide adequate justification for the challenge, within ten (10) calendar days of receiving said invoice. If the payment of, or adjustment to, any amount challenged by EID cannot be resolved by the parties within thirty (30) calendar days of notification to County of the challenged amount, then both parties mutually agree to resolve the dispute in accordance with the dispute resolution provisions set forth in County's construction contract.
5. The final invoice sent by County to EID shall include and clearly indicate any adjustments made throughout the Project, including the total amount of retention due from all previous invoices, and indicate the final payment required. County shall submit the final invoice no later than sixty (60) calendar days after final payment to County's contractor has been made. EID shall pay the final invoice within thirty (30) calendar days of receipt of invoice, subject to the provisions of Section B-3 of this Agreement regarding submittal by County to EID of as-built drawings.
6. The contractor shall provide County with monthly updates per Caltrans specifications for Progress Schedule General (Critical Path Method). County will supply EID with a copy of these monthly updated schedules

B. Work to be Done

1. In order for County to include the EID Relocation Work in County's bid package, EID shall provide material specifications to County for the work. EID shall include design drawings, specifications and estimates to County for review and incorporation into County's construction contract documents. Except as provided in Section B-6 below, EID is solely responsible for its installed facilities after construction and its acceptance of the facilities. Three copies of the construction bid package/contract prepared by County will be provided to EID. County bid plans and specifications that incorporate EID's various utility designs, prepared by County, shall be reviewed and approved by EID prior to advertising for bids. EID shall be solely responsible for content accuracy, adequacy, and clarity of the bid plans and specifications pertaining to EID installation work. EID shall have fifteen (15) working days to review and approve the bid plans and specifications. In addition to content accuracy, adequacy, and clarity, EID review shall include the following scope:
 - a. Conformance of the EID Relocation Work design with EID, and applicable Caltrans standards, standard drawings and standard specifications; and conformance with El Dorado County Department of Transportation standards and with the plans, details, and specifications for the Project entitled Green Valley Road at Tennessee Creek - Bridge Replacement, Project 77109.
 - b. Ability of relocation design to meet the same performance standards as the existing EID facilities.

EID's authorized representative may review the lowest responsible, responsive bidder's documents and may provide recommendations, if any, to County within forty-eight (48) hours of bid opening. Notwithstanding that review, County shall have sole authority to

reject any or all construction bids, resolve any bid protests, and/or to award the construction contract for the entire work.

2. EID shall provide, at EID's sole expense, one or more inspectors for all work involving, pertaining to, or affecting EID facilities to verify construction is completed in accordance with EID standards and applicable EID standard drawings and technical specifications.
3. County shall provide EID with a set of as-built drawings. At the conclusion of the final cost accounting, EID shall retain no more than five percent (5%) of the EID reimbursable portion of the total cost associated with EID facilities until as-built drawings are provided and approved by EID.
4. County shall be solely responsible for all items of contract administration for County's Project, such as surveying and contractor correspondence, except as specified in Sections A-1, B-2, B-8 and D-2 herein.
5. All EID Installation Work, inclusive of all extra work and additional work as set forth in Section B-8 herein, performed shall be in conformance with all applicable Caltrans, El Dorado County Department of Transportation, and EID standards and with the plans, details, and specifications for the Project entitled Green Valley Road at Tennessee Creek - Bridge Replacement, Project 77109.
6. County's contractor shall provide written guarantee of all of its work for one (1) year from acceptance by County. The guarantee shall inure to both County's and EID's benefit.
7. County shall provide in the Project bid specifications for the Project that the selected contractor shall add EID, and its officials, employees, agents, and representatives as an additional insured on contractor's general liability insurance policy for the Green Valley Road at Tennessee Creek - Bridge Replacement, Project 77109.
8. It is understood that time is of the essence and that County would be harmed by delays to the Project. In order to avoid delays, County and EID agree that County must maintain administrative control of the Project. To protect County from unnecessary Project delays arising from the EID Relocation Work, County and EID agree that changes to the EID Relocation Work on the Project will be handled in the following manner:
 - a. **Extra Work Required:** As used in this section, "extra work" means work that is not foreseen at the time the Project is bid, and is not anticipated in the bid documents, but must necessarily be performed in order to address conflicts, changed or differing conditions, or otherwise necessary in order to complete the Project. The expense of any increased costs or the credit for any reduced costs resulting from any and all extra work required shall be apportioned in accordance with Sections a-i and a-ii, herein below. EID, at its sole expense, will be responsible for designing and inspecting all facets of any extra work on, related to, or caused by EID facilities.

In the event that a contract change order ("CCO") is required, County will notify EID on the next working day from notification from County's contractor, and within five (5) working days will prepare a CCO. If the CCO impacts construction items of work on the contractor's critical path schedule, EID will then have five (5) working days to review, approve, and return the CCO to County or return it to County for

modification. If the CCO does not impact the critical path schedule, EID will have ten (10) working days to review, approve, and return the CCO to County or return it to County for modification. County will notify EID at the time County submits a proposed CCO to EID whether the CCO impacts the critical path schedule or not. If EID fails to return the submitted CCO to County as approved within the time periods set forth herein, then County will take one of the following actions:

- i. The CCO will be executed by County per the terms, conditions, and price shown on the CCO that had been submitted to EID. EID will be required to reimburse County, in accordance with Section A-1, Liability For Work, for the cost of the CCO.
- ii. County will direct the contractor to perform the work on a force account basis in accordance with Caltrans Standard Specification 9-1.03. For extra work performed at force account, EID shall be responsible for inspecting the extra work and tracking the time that the contractor's forces spend pursuing the extra work. On each day that extra work is performed at force account, an EID inspector will prepare and sign a work report that details the labor, equipment, and materials that were used during that day's force account work. Said reports shall be given to County's Resident Engineer for payment processing. EID will be required to reimburse County, in accordance with Section A-1, Liability For Work, for the cost of the force account work.
- iii. County will direct the contractor to stop work on the contract only to the extent reasonably deemed necessary by County. EID will then be responsible for justified costs associated with Project delay arising from the EID work. Such delay costs include but are not limited to right of way delays, extended contractor overhead, additional water pollution control costs due to the Project extending into winter, and equipment rental. EID will be required to reimburse County, in accordance with Section A-1, Liability For Work, for all said delay costs.

When County submits a CCO to EID for EID's review and approval, the CCO will clearly state which of the actions listed above that County intends to take should EID fail to return the CCO to County within the time specified above. In the event that the CCO exceeds One Hundred Thousand dollars (\$100,000), County shall only execute actions ii, or iii above.

It is agreed that all increases or decreases in justified costs associated with CCOs related to EID Relocation Work may include but are not limited to direct construction costs, extended contractor overhead, additional water pollution control costs due to CCOs extending the Project into winter, dust control, and equipment rental.

- b. **Additional Work:** As used in this section, "additional work" means work that is not foreseen at the time the Project is bid, and is not necessary work for the Project but may be desirable for the benefit of the EID facilities. Any and all additional work requested by EID shall be at EID's sole expense. EID, at its sole expense, will be further responsible for designing and inspecting all facets of any additional work requested by EID. In the event that EID desires additional work to be performed by County's contractor, EID shall address its request to County. If a price for additional

work can be directly negotiated between EID and County's contractor, then the additional work will be in accordance with a CCO for the negotiated cost. If County's contractor and EID cannot agree to a negotiated price, EID may request that the work be performed on a force account basis in accordance with Caltrans Standard Specification 9-1.03. For additional work performed at force account, EID shall be responsible for inspecting the additional work and tracking the time that the contractor's forces spend pursuing the additional work. On each day that EID work is performed at force account, an EID inspector will prepare and sign a work report that details the labor, equipment, and materials that were used during that day's force account work. Said reports shall be given to County's Resident Engineer for payment processing. Before any additional work may commence, County must write and execute the CCO for EID's additional work, at EID's direct negotiated price or at force account, whichever is applicable. If the CCO impacts construction items of work on the contractor's critical path schedule, then EID will have five (5) calendar days to review, approve, and return the CCO to County. If the CCO does not impact the critical path schedule, EID will have ten (10) calendar days to review, approve, and return the CCO to County. If EID fails to return the CCO as approved to County within the time periods set forth herein, then County shall have no obligation to compel the contractor to perform the additional work.

It is agreed that all increases or decreases in justified costs associated with CCOs related to additional EID work may include but are not limited to direct construction costs, extended contractor overhead, additional water pollution control costs due to CCOs extending the Project into winter, dust control, and equipment rental.

- c. **EID Forces:** EID may alternatively request of County that EID use its own forces to perform additional work, as that term is defined hereinabove. The determination of whether to allow the additional work to be done by EID forces shall be within County's sole discretion. In the event County determines to allow EID to perform the additional work, EID shall comply with all conditions of County's standard encroachment permit, inclusive of indemnity and insurance, and shall provide proof of insurance meeting those requirements in advance of the commencement of the work. All additional work performed by EID shall comply with the requirements of this Agreement, with the Project construction schedule and be coordinated with County's contractor work. Any and all of County's contractor justified extra work, claims or delay costs arising from or caused by EID's force work shall be EID's sole responsibility. County and EID will determine in advance of County's approval whether any Project cost savings arise from EID's proposed force work and will mutually agree to whom said cost savings, if any, shall be credited. If the parties cannot reach agreement, County may decline to allow the EID force work.

C. Duty of Cooperation, Defense and Indemnity of Contractual Claims

1. County has agreed to include the EID Relocation Work within its Project on condition that EID remain solely responsible for the design, operation, inspection, relocation and maintenance of its facilities, and solely responsible for all actual costs associated therewith, and so long as the performance of the EID Relocation Work does not result in any delays to the County's Project. Accordingly, EID shall fully cooperate with County in the timely response to all inquiries, notices, and contractual claims asserted by the County's contractors and subcontractors as they pertain to the EID Relocation Work. Further, EID shall fully cooperate and assist County in the resolution and/or settlement

of all claims from the County's contractor and subcontractors as it relates to the EID Relocation Work. EID shall reimburse County for any amounts paid by County to the County's contractor as a result of the settlement or resolution of said claims in accordance with the parties' respective rights and responsibilities under this Agreement.

2. As between EID and County, EID shall bear the sole and exclusive responsibility for any and all errors and omissions, costs associated with delays, claims, penalties, fines, damages, and liabilities of whatever kind or nature arising from the construction of the EID Relocation Work, whether to the County's contractor or utility performing work in the Project area. Therefore, to the fullest extent allowed by law, EID shall hold harmless, defend at its own expense, and indemnify County and the officers, agents, employees and volunteers of County from any and all fines, penalties, liability, claims, losses, delays, damages or expenses, including reasonable attorney's fees, and economic or consequential losses, which are claimed to or in any way arise out of or are connected with the construction of EID Relocation Work, inclusive of the design, plans and specifications, excepting only the sole or active negligence, or willful misconduct, of the County. Notwithstanding the above, in the event it is ultimately determined that the claim or liability is the result of the joint negligence of County and EID, EID'S obligation to indemnify the County shall be reduced to the extent of County's negligence. However, EID's obligation to defend and indemnify County, except for County's sole and active negligence, shall apply in the first instance and until a determination of respective negligence is made. A determination made of respective liability between the two parties may be made either by agreement between County and EID, or by a court of competent jurisdiction and County shall make any reimbursements required as a result of that determination. Each party shall notify the other party immediately in writing of any anticipated claim or damage related to activities performed under this Agreement. The parties shall cooperate with each other in the investigation and disposition of any claim arising out of the activities under this Agreement, providing that nothing shall require either party to disclose any documents, records or communications that are protected under the attorney-client privilege.

D. General Provisions.

1. County shall disclose to its contractor for the Project the horizontal and vertical locations of EID facilities as provided by EID to County. County's construction contract for the Project shall require the contractor to indemnify and save harmless and defend, including attorneys fees and expenses, EID, its officials, agents, employees, and representatives from and against any and all claims, liability, losses, and/or causes of action which arise or are claimed to arise from the negligence or willful misconduct of the contractor, its subcontractor(s), or the agents, servants or employees of any of them.
2. EID shall reimburse County for EID's portion of Flagging Traffic, Traffic Control Systems, Water and Dust Pollution Control Measures and County Construction Management Costs (which include Soils Testing and Surveying), for the placement of EID's facilities by County's contractor as outlined in this Agreement. All the above listed costs will be calculated at a total of fifteen percent (15%) of EID's direct construction contract costs related to those facilities detailed in Exhibit B.

Listed below is a percentage breakdown of EID's cost responsibilities:

Flagging Traffic.....	2%
Traffic Control Systems.....	2%
Water and Dust Pollution	1%
<u>Construction Management.....</u>	<u>10%</u>
	15% Total

See Exhibit B for EID's cost percentage and estimated costs for the above items.

EID shall reimburse County for EID's portion of Mobilization, for the placement of EID's facilities by County's contractor as outlined in this Agreement, for which total cost will be calculated as the actual percentage of the Mobilization bid line item of the total direct construction cost.

EID shall reimburse County for County Construction Management costs for any extra or additional work as defined in Section B-8 above, at a rate of eight percent (8%) of the direct construction cost of the extra or additional work. Any additional flagging, traffic control, water and dust pollution control measures or mobilization required by the extra or additional work shall be included in the direct construction contract cost of the CCO and no additional reimbursement will be added thereto.

3. County shall maintain all books, documents, papers, accounting records, and other evidence pertaining to direct construction costs incurred by County related to those facilities detailed in Exhibit B, and shall make such materials available for inspection at County's offices at reasonable times during this Agreement, the Project construction contract period, and for three (3) years from the date of final payment. In order to provide complete information for an audit, the Project billings must show separate detailed and itemized line items of work performed by County's contractor.
4. All notices to be given by the parties hereto shall be in writing and served by depositing same in the United States Post Office, postage prepaid and return receipt requested. Notices to County shall be in duplicate and addressed as follows:

To County:

County of El Dorado
Department of Transportation
4505 Golden Foothills Parkway
El Dorado Hills, CA 95762
Attn.: Matthew Smeltzer,
Deputy Director of Engineering,
Roadway Design Division

With a Copy to:

County of El Dorado
Department of Transportation
2850 Fairlane Court
Placerville, CA 95667
Attn.: Tim C. Prudhel,
Contract Services Officer

or to such other location as County directs in writing.

Notices to EID shall be in duplicate and shall be addressed as follows:

To EID:

El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667
Attn.: Brian Mueller,
Director of Engineering

With a Copy to:

El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667
Attn.: Cindy Megerdigian,
Water/Hydro
Engineering Manager

or to such other location as EID directs in writing.

5. The County Officer or employee with responsibility for administering this Agreement is Matthew D. Smeltzer, Deputy Director of Engineering, Roadway Design Division, Department of Transportation, or successor.
6. The EID Officer or employee with responsibility for administering this Agreement is Cindy Megerdigian, Engineering Manager, El Dorado Irrigation District, or successor.
7. The parties to this Agreement represent that the undersigned individuals executing this Agreement on their respective behalf are fully authorized to do so by law or other appropriate instrument and to bind upon said parties to the obligations set forth herein.
8. This Agreement and the attached Exhibits contain all of the terms of agreement between County and EID. All modifications or amendments to this Agreement must be in writing and signed by both parties.
9. Any dispute resolution action arising out of this Agreement, including, but not limited to, litigation, mediation, or arbitration, shall be brought in El Dorado County, California, and shall be resolved in accordance with the laws of the State of California.
10. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will continue in full force and effect without being impaired or invalidated in any way.
11. The waiver by either party of any requirements, condition or provision of this Agreement shall not be deemed a waiver of any subsequent breach of that or any other requirement, condition or provision of this Agreement.
12. County and EID understand and agree that this Agreement creates rights and obligations solely between County and EID and is not intended to benefit any other party. No provision of this Agreement shall in any way inure to the benefit of any third-person so as to constitute any such third-person as a third-party beneficiary of this Agreement or any of its items or conditions, or otherwise give rise to any cause of action in any person not a party hereto.
13. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

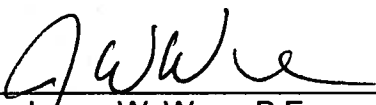
14. County and EID agree that the following approvals, permits and authorizations per the contract documents will be obtained by County and/or County's contractor prior to the commencement of the Project: the SWPPP, County encroachment permit, all discharge permits, trenching and shoring, grading permits and Dust Control Plan and Asbestos Mitigation Plan. Any other permits, approvals, and authorizations necessary for the commencement of construction of the EID Relocation Work shall be the responsibility of EID. After the issuance of the notice to proceed and commencement of work, if there are any necessary additional permits, approvals and authorizations that arise from or are related to the EID Relocation Work, EID shall be responsible for obtaining said permits, approvals and authorizations in a timely fashion so as not to delay the work. If EID is unable to obtain said permit, approval, or authorization, or to do so will result in a delay in either the EID Installation Work or County's Project as a whole, then either (i) County may issue a CCO deleting the EID work in its entirety if it has not yet commenced, or (ii) if work has commenced on the EID work, EID shall be responsible for all costs and claims associated with the delay, inclusive of delay claims or extra work claims resulting to County's Project as a result of the delay.

Contract Administrator Concurrence:

By: _____
Matthew D. Smeltzer, P.E.
Deputy Director of Engineering
Roadway Design Division
Department of Transportation

Dated: _____

Requesting Department Concurrence:

By:  _____
James W. Ware, P.E.
Director of Transportation

Dated: 2/26/10

Reviewed & Approved:

By: _____

Dated: _____

EID General Counsel's Office

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates indicated below, the latest of which shall be deemed to be the effective date of this Agreement.

-- COUNTY OF EL DORADO --

By: _____

Dated: _____

Board of Supervisors
"County"

Attest:

Suzanne Allen de Sanchez
Clerk of the Board of Supervisors

By: _____

Dated: _____

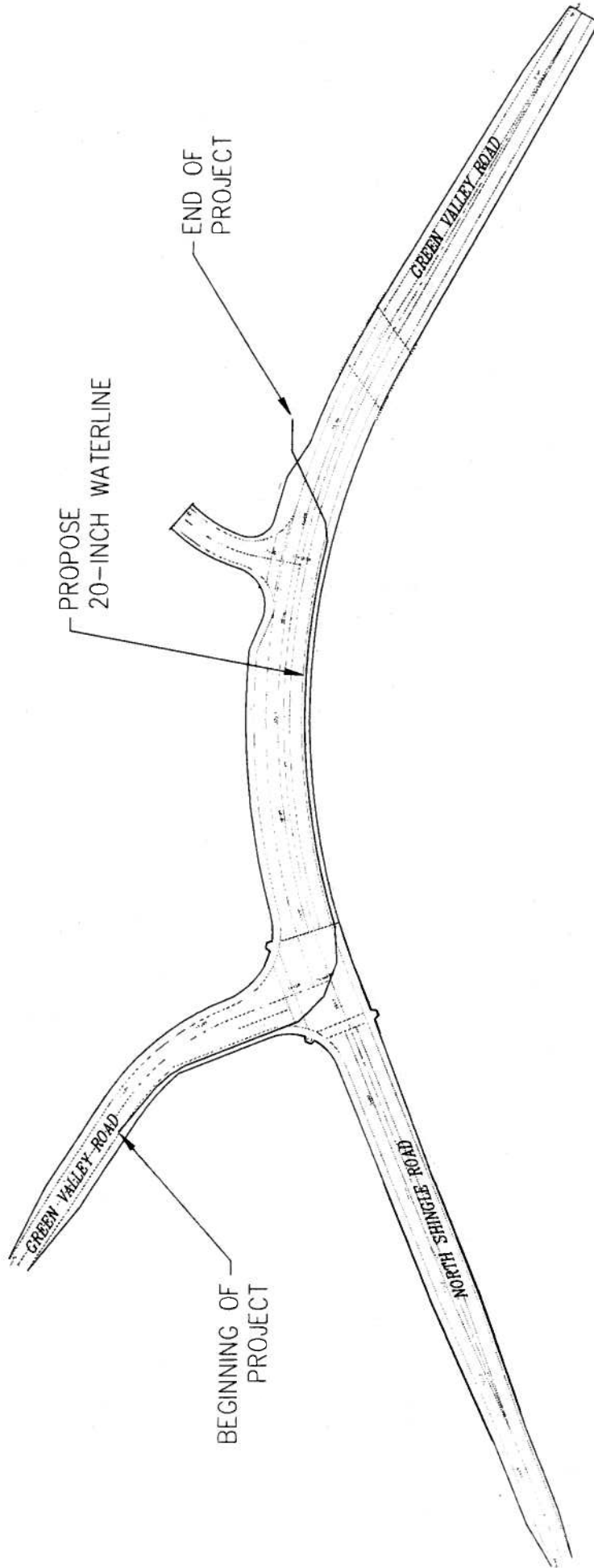
Deputy Clerk

-- EL DORADO IRRIGATION DISTRICT --

By: _____

Dated: _____

Jim Abercrombie
General Manager
"EID"



**GREEN VALLEY ROAD AT TENNESSEE CREEK
BRIDGE REPLACEMENT PROJECT**

SCALE: NONE

PRELIMINARY

DESIGNED BY	DATE	CAD	DATE
CHIEF ENGINEER	4/7/06		
REGISTERED CIVIL ENGINEER			

REVISION	DATE	DESCRIPTION	BY



**EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION**

**GOLD HILL INTERTIE RELOCATION
EXHIBIT A**

SHEET
EX - A
1 OF 1
REV. NO. 77109

Exhibit B
GOLD HILL INTERTIE RELOCATION COST ESTIMATE
2/8/2010

Project #77109 - Green Valley Road at Tennessee Creek Bridge Replacement

Item	Description	Unit	Quantity	Unit Price	Total Estimate	County Share 22.5%	EID Share 77.5%
1	Sheeting, Shoring and Bracing	LS	1	\$ 10,000.00	\$ 10,000.00	\$ 2,250.00	\$ 7,750.00
2	20-Inch Transmission Main	LF	950	\$ 140.00	\$ 133,000.00	\$ 29,925.00	\$ 103,075.00
3	20-Inch Butterfly Valve	LS	1	\$ 28,000.00	\$ 28,000.00	\$ 6,300.00	\$ 21,700.00
4	4-Inch Blow-Off Valve Assembly	LS	1	\$ 2,400.00	\$ 2,400.00	\$ 540.00	\$ 1,860.00
5	2-Inch Combination Air Valve Assembly	LS	1	\$ 1,500.00	\$ 1,500.00	\$ 337.50	\$ 1,162.50
6	Surge Relief Bypass	LS	1	\$ 15,000.00	\$ 15,000.00	\$ 3,375.00	\$ 11,625.00
7	Testing and Disinfection	LS	1	\$ 18,969.00	\$ 18,969.00	\$ 4,268.03	\$ 14,700.98
8	EID Tie-In Connections	LS	1	\$ 20,000.00	\$ 20,000.00	\$ 4,500.00	\$ 15,500.00
	Construction Cost Subtotal				\$ 228,869.00	\$ 51,495.53	\$ 177,373.48
	Flagging Traffic			2.0%	\$ 4,577.38	\$ 1,029.91	\$ 3,547.47
	Traffic Control Systems			2.0%	\$ 4,577.38	\$ 1,029.91	\$ 3,547.47
	Water and Dust Pollution Control			1.0%	\$ 2,288.69	\$ 514.96	\$ 1,773.73
	Construction Management			10.0%	\$ 22,886.90	\$ 5,149.55	\$ 17,737.35
	Mobilization / Demobilization			8.0%	\$ 18,309.52	\$ 4,119.64	\$ 14,189.88
	Subtotal				\$ 281,508.87	\$ 63,339.50	\$ 218,169.37
	Contingency			10.0%	\$ 28,150.89	\$ 6,333.95	\$ 21,816.94
	Total Construction Costs				\$ 309,659.76	\$ 69,673.45	\$ 239,986.31

Exhibit C

EID Relocation Work Improvement Plans

**Gold Hill Intertie Relocation
as part of the**

Green Valley Road at Tennessee Creek Bridge Replacement Project

SECTION IDENTIFICATION LETTER
A
W-1

SECTION NUMBER WHERE SECTION IS TAKEN OR APPEARS
W-1

DETAIL IDENTIFICATION NUMBER
2

SHEET NUMBER WHERE DETAIL IS TAKEN OR APPEARS
W-1

HORIZONTAL BEARING AND DISTANCE OF NEW PIPE
0.0000' E
5'-00.00'

SLOPE OF NEW PIPE (PROFILE)
5'-00.00'

INDICATES CURVE NUMBER (PLAN)
C1

PLAN SYMBOLS (PROPOSED)

EXISTING FACILITIES

EXISTING FENCE
XXXXXX

EXISTING PIPE OR STRUCTURE TO BE ABANDONED OR REMOVED
|||||

EXISTING VEGETATION
/ / / / /

EXISTING MANHOLE & PIPELINE
O

EXISTING POWER POLE
—

PROPERTY LINE
- - - - -

EXISTING DIRT OR GRAVEL ROAD
=

EXISTING PAVED ROAD
=

EXISTING DRAINAGE FLOWLINE
———

EXISTING OVERHEAD ELECTRICAL POWER LINES
- - - - -

EXISTING OVERHEAD ELECTRICAL POWER AND TELEPHONE LINES
- - - - -

EXISTING UNDERGROUND FIBER OPTIC LINE
- - - - -

EXISTING OVERHEAD TELEPHONE AND TELEVISION CABLE
- - - - -

EXISTING UNDERGROUND TELEPHONE CABLE
- - - - -

EXISTING UNDERGROUND WATER PIPE
- - - - -

EXISTING UNDERGROUND SANITARY SEWER PIPE
- - - - -

EXISTING UNDERGROUND STORM DRAIN PIPE
- - - - -

EXISTING UNDERGROUND GAS SERVICE
- - - - -

EXISTING CULVERT WITH SIZE AND PIPE TYPE
- - - - -

NEW FACILITIES

NEW TOP OF CUT
———

NEW TOE OF FILL
———

EASEMENT/BOUNDARY/ROW AS LABELED
- - - - -

NEW BUTTERFLY VALVE
+ + + + +

NEW COMBINATION AIR AND VACUUM VALVE
+ + + + +

NEW BLOW-OFF VALVE
+ + + + +

NEW BRANCH STUB OUT
+ + + + +

TIE-IN CONNECTION AND DISINFECTION NOTES:

- CONTRACTOR TO PREPARE AND SUBMIT ALL SHOP DRAWINGS, FOR ALL PIPING MATERIALS AND APPURTENANCES, INCLUDING PROPOSED METHOD OF INSTALLING, TESTING, AND DISINFECTION OF NEW PIPE. INFORMATION TO BE PROVIDED SHOULD BE BASED AROUND THE FOLLOWING CRITERIA:
1. FABRICATE AND DELIVER ALL WELDED MATERIALS TO JOB SITE THAT ARE INCLUDED FOR EID PIPE RELOCATION THAT INCLUDES, BUT IS NOT LIMITED TO: 20" DIP, FITTINGS, GRIPPER RINGS, AND APPURTENANCES.
 2. CONSTRUCT NEW 70" DUCTILE IRON RELOCATION PIPELINE AND PIPELINE APPURTENANCES, IN MULTIPLE STEPS, STARTING WITH THE CONSTRUCTION OF THE PIPELINE AND APPURTENANCES BETWEEN CONNECTION PIECE 1A AND CONTINUING TO THE NEW ISOLATION VALVE, CONNECTION PIECE 1B.
 3. NEWLY CONSTRUCTED PIPELINE SHALL BE TEMPORARILY BUNDLED, FLANGED, PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH CONTRACTORS SUBMITTED PLAN, CONTRACT SPECIFICATIONS, AND EID INSPECTOR APPROVAL. CONTRACTOR'S SUBMITTED PLAN MUST BE APPROVED BY EID'S PROJECT MANAGER BEFORE WORK MAY START. PRESSURE TESTING WILL ALSO INCLUDE TESTING AGAINST THE NEW BUTTERFLY VALVE. THE CONTRACTOR SHALL INSTALL ANY APPARATUS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL CHARGE.
 4. IN ADDITION, DUCTILE IRON PIPE AND FITTINGS INCLUDED IN CONNECTION DETAILS 1 AND 2 MUST BE DISINFECTED ABOVE GROUND IN ACCORDANCE WITH SPECIFICATIONS AND AWWA C901 DISINFECTION OF WATER MAINS, ALONG WITH EID INSPECTOR APPROVAL. BETWEEN THE TIME THE ACCEPTED BACTERIOLOGICAL TESTING RESULTS ARE RECEIVED UNTIL THE PIPE IS INSTALLED, PIPE ENDS MUST BE SEALED WITH PLASTIC WRAPS, WATERIGHT PLUGS, OR CAPS.
 5. IN COOPERATION WITH EID, ISOLATE EXISTING TRANSMISSION MAIN TO BE CUT BY CLOSING THE NEAREST ISOLATION (BUTTERFLY) VALVES UPSTREAM AND DOWNSTREAM OF THE INTENDED TIE-IN.
 6. FIELD VERIFY THE LOCATION AND OPERATIONAL CAPABILITIES OF THE EXISTING AIR RELEASE AND AIR AND VACUUM VALVES PRIOR TO THE DRAINING OF THE EXISTING ISOLATED LINE SEGMENT.
 7. EXPOSE AND EXCAVATE AROUND THE EXISTING PIPELINE AT THE LOCATIONS OF THE TIE-INS. PROVIDE TEMPORARY SUPPORT NECESSARY TO MAINTAIN EXISTING DIP IN SERVICE WITHOUT LEAKAGE. METHOD OF SUPPORT MUST NOT INTERFERE WITH CONSTRUCTION OF NEW TIE-IN.
 8. BEFORE ANY WORK MAY BEGON ON THE EXISTING EID TRANSMISSION MAIN, CONTRACTOR MUST SUBMIT A DETAILED TIE-IN PROCEDURE AND SPECIFY THE LOCATION AND TIMING SEQUENCE OF THE TIE-IN EVENT TO BE APPROVED BY THE EID PROJECT MANAGER.
 9. TO DRAIN THE EXISTING LINE, INSERT A SADDLE TAP-TYPE FLANGE AT THE LOWEST ELEVATION ALONG THE PIPELINE BETWEEN THE TWO ISOLATION VALVES. THE DISTRICT SHALL OPERATE ALL DISTRICT VALVES.
 10. DRAIN THE EXISTING LINE AND DISPOSE OF WATER IN ACCORDANCE AND APPROVAL OF EID AND APPROPRIATE REGULATORY AGENCIES.
 11. ONCE LINE HAS BEEN COMPLETELY DRAINED, THE SADDLE TAP SHALL BE PERMANENTLY PLUGGED TO PREVENT ANY FURTHER LEAKAGE.
 12. TWO CUTS SAW CUTS SHALL BE MADE ON THE EXISTING PIPE AT EACH PROPOSED TIE-IN LOCATION. ONE CUT AT THE TIE-IN LOCATION AND ANOTHER ALONG THE EXISTING PIPE THAT WILL NOT BE IN CONTACT WITH THE EXISTING PIPE. AT EACH TIE-IN, THE CONTRACTOR SHALL PROVIDE TROUGH PIPE REMOVAL TO ALLOW CONSTRUCTION OF NEW TIE-IN. ONCE THESE PIECES ARE CUT, THEY SHALL BE REMOVED OUTSIDE OF RIGHT OF WAY TO PREPARE THE NEW TIE-IN.
 13. THE EXISTING DIP THAT IS TO BE TAKEN OUT OF SERVICE SHALL BE SUFFICIENTLY CAPPED WITH CONCRETE A MINIMUM OF 10' AT EACH END BEFORE BACKFILL.
 14. PROPERLY PREPARE THE EXISTING LINE FOR TIE-IN WITH NEW SYSTEM WHICH WILL ALSO INCLUDE DISINFECTION OF THE SAW CUT PIPE.
 15. INSTALL AND COMPLETE NEWLY CONNECTED SYSTEM. COORDINATE WITH EID TO OPEN ISOLATION VALVES AND RESTORE SYSTEM OPERATION.
 16. EID REQUIRES THAT TIE-IN TO EXISTING SYSTEM MUST NOT EXCEED AN 8-HOUR TIME PERIOD, AND SHALL BE DONE AT NIGHT TIME DURING OFF-PEAK DEMAND HOURS.

CORROSION NOTES:

1. POLYETHYLENE ENCASE ALL PIPE IN ACCORDANCE WITH THE EL DORADO IRRIGATION DISTRICT STANDARD DRAWING NO. W26.

CONCRETE NOTES:

1. ALL REINFORCING STEEL, INCLUDING WELDED WIRE MESH, SHALL BE OF THE SIZE AND IN THE LOCATION REQUIRED FOR DESIGN LOADS. ALL REINFORCING SHALL BE SUFFICIENTLY TIED TO WITHSTAND ANY DISPLACEMENT DURING THE POURING OPERATION. ALL BARS SHALL BE INTERMEDIATE GRADE, OR AS SPECIFIED, BULLET STEEL CONFORMING TO ASTM A615.
2. THRUST BLOCKS SHALL CONFORM TO CALTRANS CLASS C SPECIFICATIONS.

FOR PLOTTED PLANS

REVISION

DATE

BY

CHECKED

DATE

APPROVED UNDER THE SUPERVISION OF

REGISTERED CIVIL ENGINEER

DATE

PROJECT NO. 77109
DATE 02/21/10
DATE



EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION

GREEN VALLEY ROAD AT TENNESSEE CREEK BRIDGE RECONSTRUCTION PROJECT
SYMBOLS LEGEND & NOTES

SHEET W-1
52 OF 58

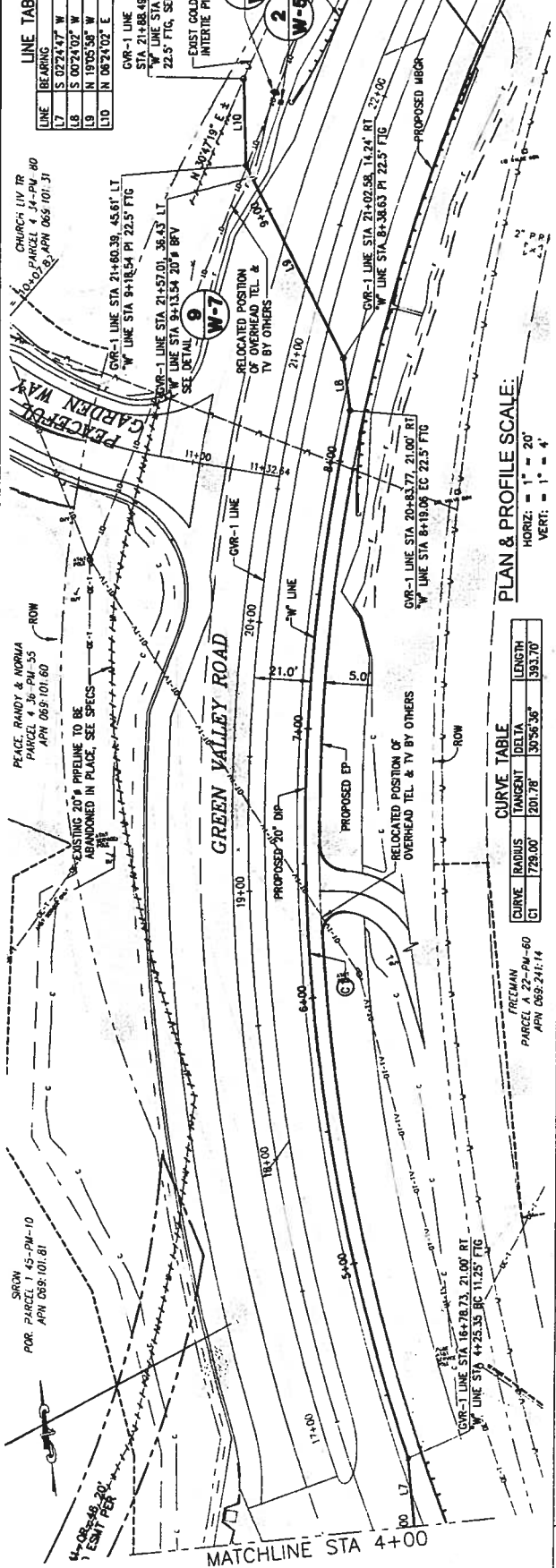
LINE TABLE

LINE	BEARING	DISTANCE
L7	S 0274.47° W	36.00'
L8	S 00724.02° W	19.57'
L9	N 10925.58° W	79.97'
L10	N 08274.02° E	31.80'

CHURCH: LIV TR
PARCEL 4 14-PM-80
APN 069:101:51

PLACE RANDY & NORBIA
PARCEL 3 35-PM-55
APN 069:101:60

SROW
POR: PARCEL 1 45-PM-10
APN 069:101:81

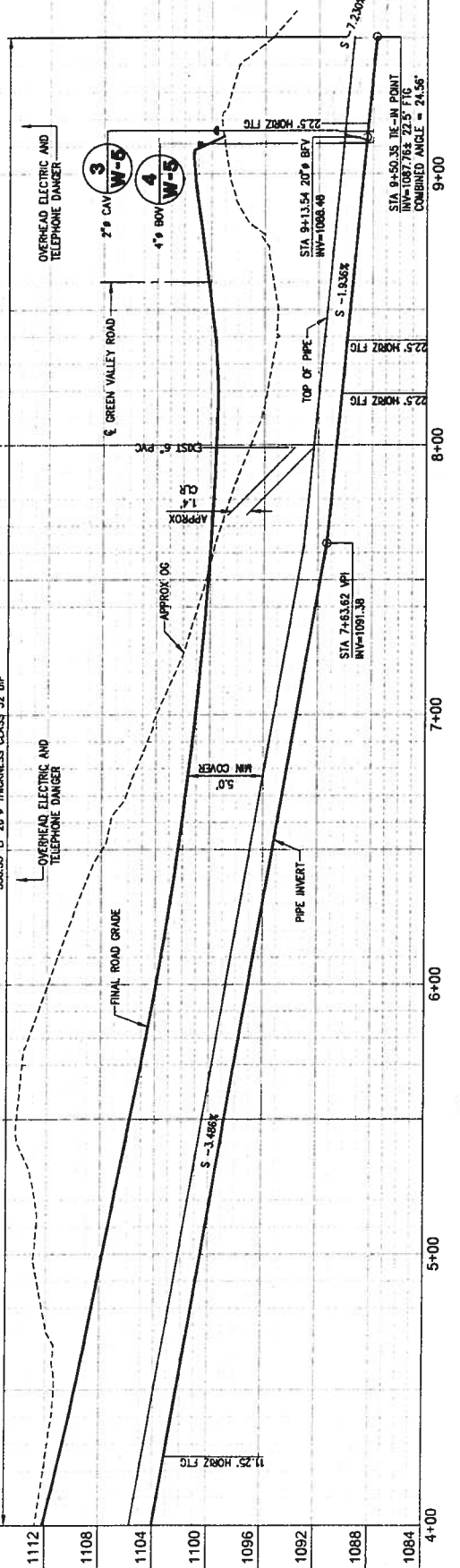


PLAN & PROFILE SCALE:
HORIZ: 1" = 20'
VERT: 1" = 4'

CURVE TABLE

CURVE	RADIUS	TANGENT	DELTA	LENGTH
C1	728.00'	201.76'	30°56'38"	393.70'

FREEMAN
PARCEL A 22-PM-60
APN 069:241:14



REVISION

NO.	DATE	BY	DESCRIPTION

REQUIRED UNDER THE SUPERVISION OF

REGISTERED CIVIL ENGINEER

DATE: 11/11/2025

EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION

GREEN VALLEY ROAD AT TENNESSEE
CREEK GOLDHILL INTERTIE RELOCATION
PLAN AND PROFILE

SHEET
W-3
54 OF 56
77108

CONSTRUCTION NOTES:

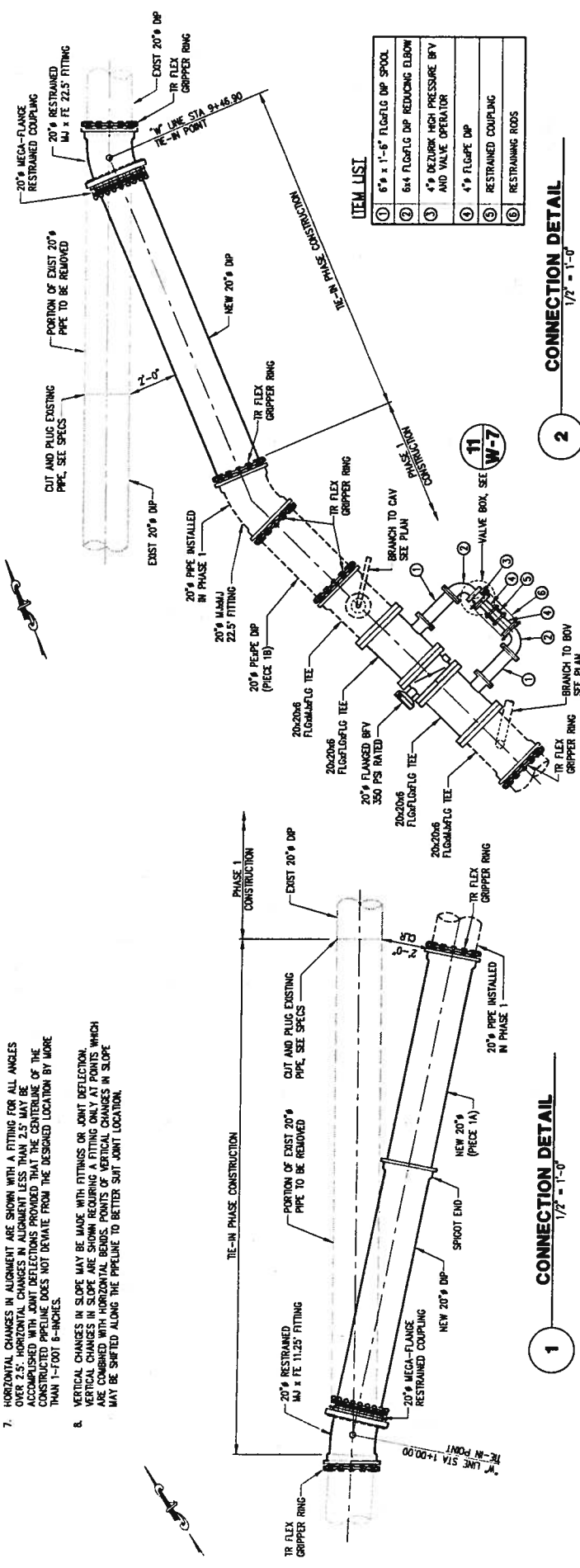
1. ALL WORK SHALL BE ACCOMPLISHED UNDER THE APPROVAL INSPECTION AND TO THE SATISFACTION OF THE EL DORADO IRRIGATION DISTRICT (EID) PROJECT MANAGER. ALL CONSTRUCTION SHALL CONFORM TO THESE PLANS AND ACCOMPANYING SPECIFICATION AND SPECIAL PROVISIONS.
2. LOCATION OF ALL UNDERGROUND FACILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL FACILITIES PRIOR TO ANY EXCAVATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND FACILITIES AFFECTED BY THE WORK AND SHALL CONTACT UNDERGROUND SERVICES ALERT (USA) 48 HOURS PRIOR TO ANY EXCAVATION WORK FOR DETERMINATION AND LOCATION OF UNDERGROUND UTILITIES. (PHONE 1-800-642-2444).
4. CONNECTING TO EXISTING WATER FACILITIES SHALL BE DONE BY A LICENSED CONTRACTOR IN ACCORDANCE WITH EID TIE-IN PROCEDURES SHOWN ON THESE PLANS.
5. ALL WORK PERFORMED WITHIN THE ROADWAY LIMITS SHALL BE REPAIRED IN ACCORDANCE WITH D.O.T. STANDARD SPECIFICATIONS.
6. EXISTING UTILITIES, PIPELINES AND STRUCTURES SHOWN ON THE DRAWINGS ARE IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY OFFICES WHICH ARE AFFECTED BY THE CONSTRUCTION OPERATION WELL IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, SIZE, TYPE AND ELEVATION OF ALL EXISTING PIPELINES AND STRUCTURES.
7. HORIZONTAL CHANGES IN ALIGNMENT ARE SHOWN WITH A FITTING FOR ALL ANGLES OVER 2.5'. HORIZONTAL CHANGES IN ALIGNMENT LESS THAN 2.5' MAY BE ACCOMPLISHED WITH JOINT DEFLECTIONS PROVIDED THAT THE CENTRELINE OF THE CONSTRUCTED PIPELINE DOES NOT DEVIATE FROM THE DESIGNED LOCATION BY MORE THAN 1'-FOOT 6-INCHES.
8. VERTICAL CHANGES IN SLOPE MAY BE MADE WITH FITTINGS OR JOINT DEFLECTION. VERTICAL CHANGES IN SLOPE REQUIRING A FITTING ONLY AT POINTS WHICH ARE COMBINED WITH HORIZONTAL BENDS, MUST BE ACCOMPLISHED WITH FITTINGS. FITTINGS MAY BE SHIFTED ALONG THE PIPELINE TO BETTER SUIT JOINT LOCATION.
9. LOCATION OF AIR VALVE IS SHOWN IN ITS APPROXIMATE LOCATION. THE EXACT LOCATION WILL BE DETERMINED IN THE FIELD BY EID INSPECTION.
10. ALL PIPE SHALL HAVE A MINIMUM OF 5'-FEET 0-INCHES OF COVER AND ADDITIONAL COVER WHERE SHOWN ON THE DRAWINGS.
11. WHERE EXCAVATION FOR ANY FACILITY EXCEEDS 5'-FEET IN DEPTH THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM CAL/OSHA. (PHONE 1-916-920-8123)
12. THE LOCATIONS SHOWN FOR THE RIGHTS-OF-WAY AND EASEMENTS ARE APPROXIMATE ONLY AND ARE NOT TO BE CONSIDERED AS A GUARANTEE. THE RIGHTS-OF-WAY AND EASEMENT COPIES OF EASEMENT DESCRIPTIONS ARE AVAILABLE AT THE COUNTY OF EL DORADO D.O.T.
13. ALL STATIONING AND DISTANCES SHOWN ON THE DRAWINGS ARE BASED ON HORIZONTAL MEASUREMENTS.
14. SEE COUNTY OF EL DORADO SPECIFICATIONS FOR PROTECTION OF ALL TREES & RESTORATION OF EXISTING GRASSES AND PLANTS.
15. ALL PIPELINE ANGLED FITTINGS SHALL ALSO CONTAIN THRUST BLOCKS. SEE THRUST BLOCK SCHEDULE FOR DETAILS.
16. ALL PIPELINE JOINTS SHALL BE AXIALLY RESTRAINED THROUGH RESTRAINED JOINTS. SEE SPECS FOR RESTRAINED JOINT TYPES.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL CONTACT EID ENGINEERING DEPARTMENT OFFICE FOR COPIES OF AS BUILT PLANS FOR VERIFYING THE LOCATION OF THE EXISTING 20" WATERLINE PRIOR TO COMMENCING CONSTRUCTION.
2. EXISTING WATER SERVICES SHALL BE MAINTAINED AT ALL TIMES, EXCEPT DURING THE TIME OF CONNECTIONS TO THE NEW MAIN OR FOR UNFORESEEN CONDITIONS. EID SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF ANY SHUT-DOWN. ONLY DISTRICT PERSONNEL SHALL OPERATE ANY VALVES ON EXISTING WATER SYSTEM.
3. VALVES AND ATTENDANT HARDWARE SALVAGED DURING THE WATERLINE REPLACEMENT ARE TO BE RETURNED TO THE EID DISTRICT YARD BY CONTRACTOR.
4. REPLACEMENT PIPE AND FITTINGS ARE TO BE ENCASED IN 8 MIL POLYETHYLENE FILM.
5. THE CONTRACTOR CAN RELOCATE AND USE EXISTING CONCRETE VALVE VAULTS IF THEY ARE NOT DAMAGED.
6. ALL PIPELINES SHALL BE STERILIZED, FLUSHED AND PRESSURE TESTED IN ACCORDANCE WITH EID STANDARDS AND THESE SPECIFICATIONS.
7. ALL LIDS SHALL BE MARKED WATER.

NOTE:

ALL PIPE, FITTINGS AND APPURTENANCES MUST BE RATED FOR 350 PSI MINIMUM WORKING PRESSURE.



ITEM LIST

①	6x4 x 1-1/2" FLANGE DP SPOOL
②	6x4 FLANGE DP REDUCING ELBOW
③	4" BELLBOW HIGH PRESSURE BVI AND VALVE OPERATOR
④	4" FLANGE DP
⑤	RESTRAINED COUPLING
⑥	RESTRAINING RODS



PROVIDED UNDER THE AUTHORITY OF:

NO.	DATE	BY	FOR

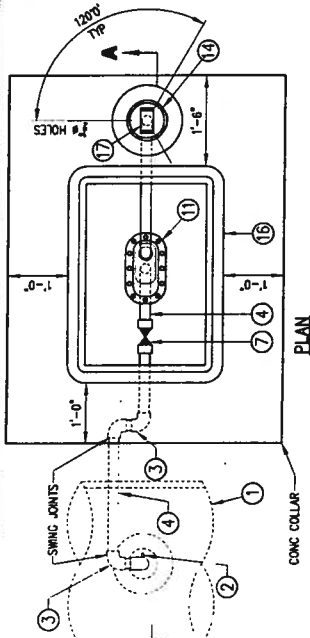
REVISIONS:

NO.	DATE	DESCRIPTION

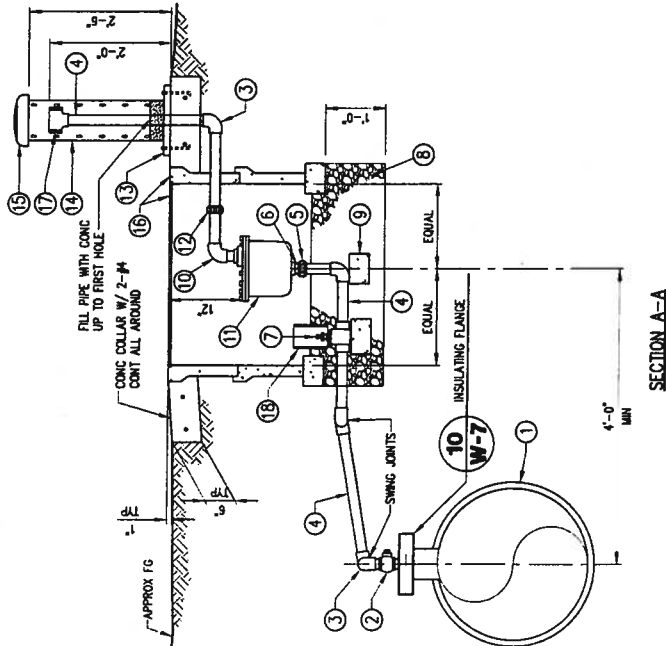
EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION

GREEN VALLEY ROAD AT TENNESSEE CREEK BRIDGE RECONSTRUCTION PROJECT
PIPELINE DETAILS

- NOTES:**
1. SIZE OF PIPING SHALL MATCH SIZE OF AIR VALVE.
 2. SEE PLAN FOR VALVE SIZE AND LOCATION.
 3. ALL PIPING ABOVE GROUND TO BE PAINTED.
 4. CENTER VALVE IN LONGITUDINAL DIRECTION IN BOX.
 5. PAINT VENT PIPE ENCLOSURE SIMILAR TO MARKER POST, SAFETY BLUE.
 6. USE CHRISTY B36 FOR 1" VALVE AND CHRISTY B40 FOR 2" VALVE (OR EQUAL).



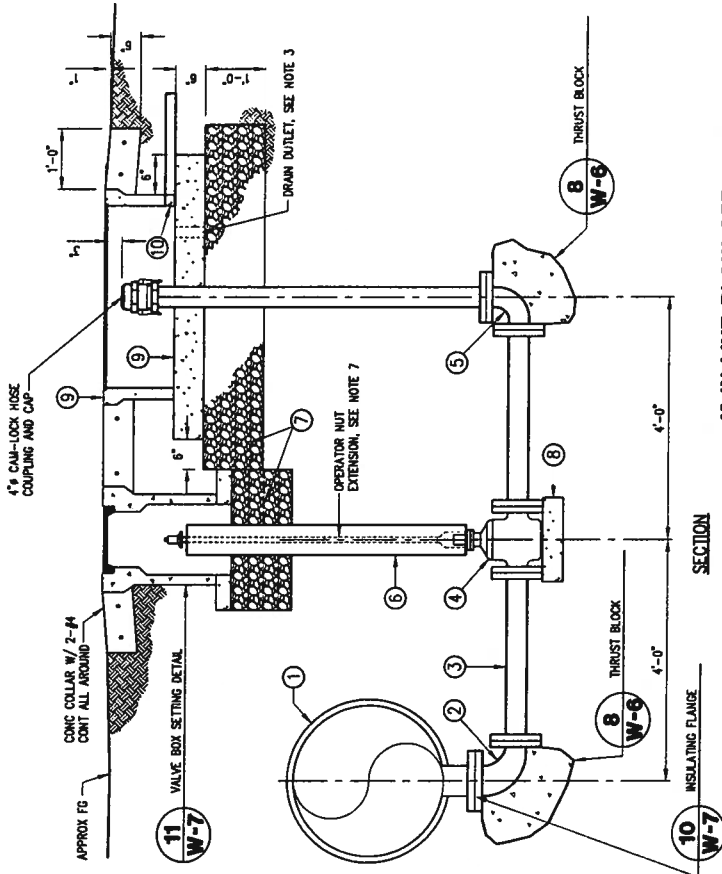
ITEM NO.	DESCRIPTION
1	20" x 20" x 6" COMPACT DP TEE
2	2" COPPER CORPORATION STOP AWWA I.P.T. x F.I.P.
3	FITTINGS SAME AS PIPE MATERIAL
4	COPPER PIPE TYPE K AND WRAP WITH PVC TAPE
5	INSULATED UNION
6	BRASS NIPPLE
7	BRASS BALL VALVE F.I.P. x F.I.P.
8	1" CLEAN DRAIN ROOK
9	12" x 12" x 4" CONIC PAD
10	STREET ELL
11	SINGLE BODY COMBINATION AIR VALVE UNLESS OTHERWISE NOTED ON PLAN
12	UNION
13	6" SCREWED FLANGE ANCHORED IN CONG W/ 3 HOLLOW BOLTS
14	6" GALV. PIPE W/ 3 VERT. RINGS OF 1/2" HOLES (6 EACH ROW)
15	6" GALV SCORE CAP
16	CONG BOX & C.I. UD, SEE NOTE 6.
17	TEE WITH 20-MESH SCREEN ATTACHED AT EACH END.
18	4" PVC RISER





3 1' AND 2' COMBINATION AIR & VACUUM VALVE (CAV)
NO SCALE

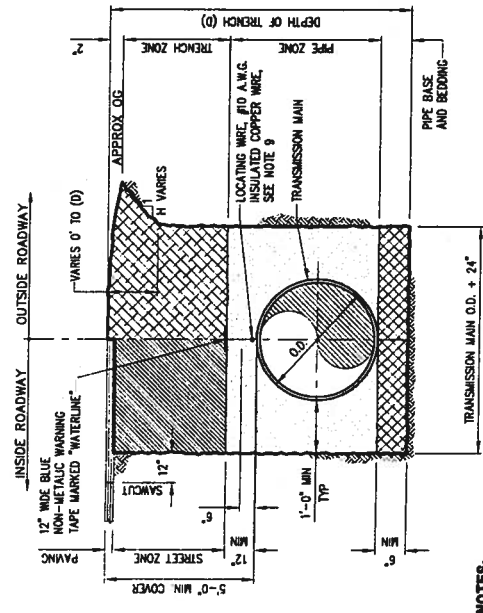
- NOTES:**
1. SEE PLAN FOR VALVE SIZE AND LOCATION.
 2. BLOW-OFF VALVES LARGER THAN 4" SHALL HAVE PRIOR EID APPROVAL.
 3. 2" DRAIN AND ROCK TO BE INSTALLED ONLY WHEN PVC DRAIN CANNOT BE INSTALLED. PRIOR EID APPROVAL REQUIRED.
 4. UTILITY BOX SHALL HAVE BOLT DOWN LID.
 5. PIPE SPOOL LENGTH MAY BE INCREASED TO FIELD CONDITIONS WITH ENGINEERS APPROVAL.
 6. SHAFT EXTENSION REQUIRED WHERE TOP OF VALVE NUT IS MORE THAN 3" BELOW FINISH GROUND. SHAFT SHALL BE PER EID STANDARD DRAWING W14.
 7. ALL PIPE VALVES AND APPURTENANCES SHALL BE RATED FOR 350 PSF MINIMUM WORKING PRESSURE.

ITEM NO.	DESCRIPTION
1	20" x 20" x 6" COMPACT DP TEE
2	6" x 4" REDUCING 90° BEND
3	4" DP SPOOL
4	4" HIGH PERFORMANCE BUTTERFLY VALVE
5	4" 90° BEND
6	PVC OPERATOR RISER
7	1" CLEAN DRAIN ROOK
8	12" x 12" x 4" CONIC PAD
9	CONCRETE BASE SLAB
10	2" PVC DRAIN PIPE
11	CHRISTY B36 PRECAST UTILITY BOX



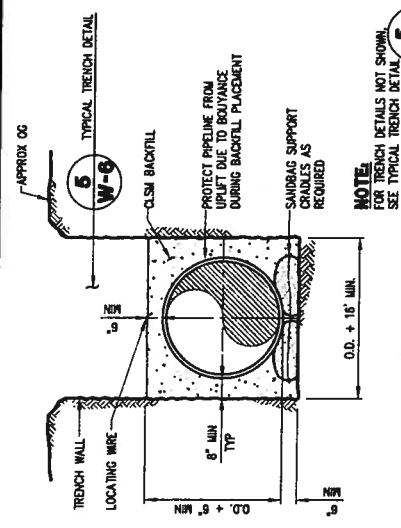
4 4' IN-LINE BLOW-OFF VALVE ASSEMBLY (BOV)
NO SCALE

		EL DORADO COUNTY DEPARTMENT OF TRANSPORTATION		GREEN VALLEY ROAD AT TENNESSEE CREEK BRIDGE RECONSTRUCTION PROJECT PIPELINE DETAILS	
PROJECT NO. DRAWING NO. DATE	TYPICAL DOP DATE DTK 02/07/10 ROAD NUMBER 000	PREPARED UNDER THE SUPERVISION OF: 	REGISTERED CIVIL ENGINEER DATE	SHEET W-5 56 OF 56 77109	REVISION NO. DATE DESCRIPTION

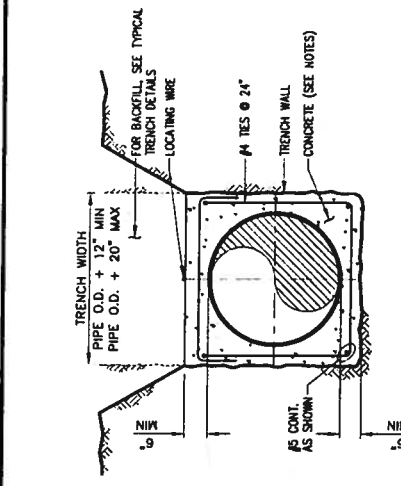


- NOTES:**
1. PIPE ZONE, TRENCH ZONE AND STREET ZONE BACKFILL SHALL BE COMPACTED PER SPECIFICATIONS.
 2. TO AVOID PIPE DAMAGE, PIPE ZONE AND BEDDING MATERIAL SHALL BE NON-ANGULAR WHEN POLYETHYLENE PIPE IS USED; SAND WHEN FUSION EPXY COATED METALLIC PIPE IS USED.
 3. ALL EXCAVATIONS SHALL COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS INCLUDING CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS. RESULTS OF THE PRELIMINARY FIELD INVESTIGATIONS ARE INCLUDED IN CONTRACT SPECIFICATIONS.
 4. CONTRACTOR TO DETERMINE ACCEPTABLE TRENCH SIDE SLOPES, IN ACCORDANCE WITH OSHA REQUIREMENTS.
 5. FOR BACKFILL MATERIAL REQUIREMENTS, SEE SPECS. PONDING OR LETTING IS NOT AN ACCEPTABLE MEANS OF COMPACTION WHEN COUNTY OR CITY ENCROACHMENT PERMIT CONDITIONS ARE MORE RESTRICTIVE, THEY WILL TAKE PRECEDENCE.
 6. TYPICAL PIPE TRENCH DETAIL SHALL BE UTILIZED UNLESS NOTED OTHERWISE.
 7. MINIMUM COVER OF 60" REQUIRED.
 8. STREET ZONE SHALL EXTEND FROM PIPE ZONE TO PAVING. STREET ZONE SHALL BE IN ACCORDANCE WITH EL DORADO COUNTY STANDARDS.
 9. LOCATING WIRE SHALL BE #10 SOLID AWG DIRECT BURIED COPPER TRACER WIRE WITH THERMO-PLASTIC INSULATION. TERMINATION SHALL BE PER EID STANDARDS OR AS APPROVED BY THE ENGINEER.
 10. NO OTHER UTILITIES PERMITTED WITHIN 12" OF WATER FACILITIES.

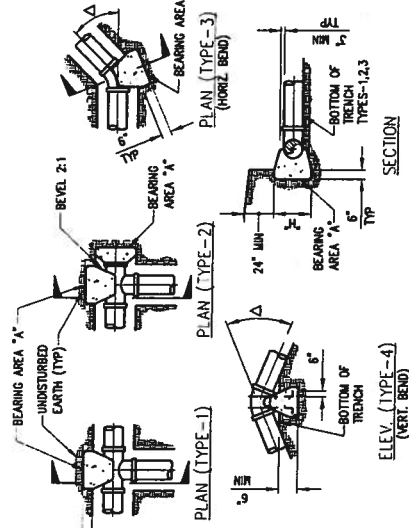
5 TYPICAL TRENCH DETAIL
NO SCALE



6 CLSM BACKFILL DETAIL
NO SCALE



7 PIPE ENCASEMENT DETAIL
NO SCALE



8 THRUST BLOCK DETAILS
NO SCALE

THRUST BLOCKS SCHEDULE

PIPE DIA (in)	TEST PRESSURE (P.S.I.)	THRUST BLOCK BEARING AREA "A" (S.F.)	ANCHOR BLOCK VOL OF CONCRETE (C.Y.)	TEE OR BULOGE/D			
4"	300	7.00	4.00	2.00	1.00	1.25	5.00
6"	300	7.00	4.00	2.00	0.05	1.00	5.00
20"	300	78.0	7.05	2.83	11.0	0.44	4.30

- NOTES:**
1. THRUST BLOCK DESIGN IS BASED ON TEST PRESSURE=300PSI. SOIL BEARING PRESSURE=15000PSF. INSTALLATIONS USING HIGHER PRESSURE OR LOWER SOIL BEARING PRESSURE SHALL BE ADJUSTED ACCORDINGLY, AND SUBMITTED FOR APPROVAL BY ED ENGINEERING DEPARTMENT.
 2. THRUST BLOCKS SHALL BE CONSTRUCTED OF CLASS "C" CONCRETE.
 3. THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED SOIL.
 4. JOINTS NUTS AND BOLTS SHALL BE KEPT CLEAR OF CONCRETE AND BE ABLE TO BE OPERATED WITHOUT DISTURBING THRUST BLOCK(S).
 5. REBAR SHALL BE SHAPED WITH 90° BEND AT END, AND EXPOSED REBAR SHALL BE COATED WITH 80 MILS OF COLD-APPLIED BITUMASTIC WATER PROOFING COMPOUND.
 6. THRUST BLOCKS FOR REDUCERS SHALL BE DESIGNED BY THE ENGINEER.

FOR REDUCED PLANS

REVISION

NO.	DATE	BY	CHKD	APP'D	DESCRIPTION

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

DATE: 02/07/10

PROJECT NO: 000

SCALE: AS SHOWN

PROJECT: GREEN VALLEY ROAD AT TENNESSEE CREEK BRIDGE RECONSTRUCTION PROJECT

SHEET: W-6

OF: 57 OF 58

DATE: 07/10

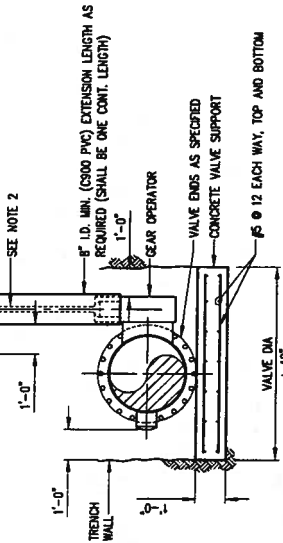
PROJECT NO: 77109

11 VALVE BOX SETTING DETAIL

W-7

CONSTRUCTION NOTES:

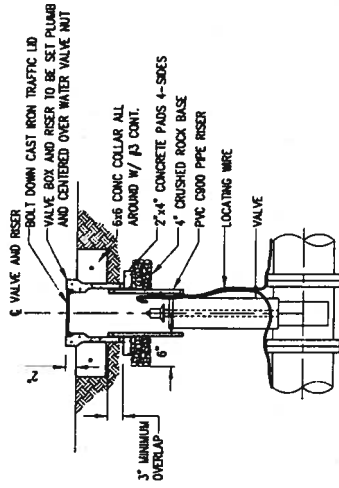
- CENTER AND PLUMB RISER OVER ACTUATOR NUT.
- WHERE VALVE OPERATING NUT IS MORE THAN 3'-0" BELOW FINISHED GROUND, PROVIDE SHAFT EXTENSION WITH CENTERING RING AND 2" OPERATING NUT TO 6" BELOW FINISHED GROUND. SHAFT SHALL BE PER ED STANDARD DRAWING W14.



INSTALLATION DETAIL
BURIED BUTTERFLY VALVE

NO SCALE

9



10 VALVE BOX SETTING DETAIL

NO SCALE

10



PROJECT	GREEN VALLEY ROAD AT TENNESSEE CREEK BRIDGE RECONSTRUCTION PROJECT
DATE	02/20/10
DESIGNED BY	[Redacted]
CHECKED BY	[Redacted]
DATE	02/20/10
PROJECT	GREEN VALLEY ROAD AT TENNESSEE CREEK BRIDGE RECONSTRUCTION PROJECT



EL DORADO COUNTY
DEPARTMENT OF TRANSPORTATION

GREEN VALLEY ROAD AT TENNESSEE
CREEK BRIDGE RECONSTRUCTION PROJECT
PIPELINE DETAILS

SHEET
W-7
58 OF 58
77109