

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 2014, by and between the City Pflugerville, Texas (hereinafter "Owner") and HDR Engineering, Inc. (hereinafter "Contractor").

WHEREAS Owner desires Contractor to perform services (hereinafter "Work") as set forth in Exhibit A, "Scope of Work".

WHEREAS Contractor is willing to perform such Work.

WHEREAS Owner has agreed to allow Contractor reasonable access to Owner's facility to enable Contractor to perform such Services.

NOW THEREFORE, it is agreed as follows:

Section 1. **The Work.** The Contractor agrees to furnish all supervision, labor, tools, equipment, materials and supplies necessary to perform the Work described and fully set forth in Exhibit A, which is attached hereto and made a part of this Contract, within the time set forth therein.

Section 2. **Payment.** *For and in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree to complete work specified in Exhibit A without additional cost to Owner and Contractor shall not be paid for the work.*

Section 3. **Term.** The contract will terminate when the Contractor has completed the work specified in Exhibit A.

Section 4. **Bonding.** Upon request of the Owner, Contractor shall furnish a Performance and Payment Bond in an amount equal to the full value of the work, or other security acceptable to Owner, if Contractor retains any subcontractors to perform any portion of the work as set forth in Exhibit A. Such bond shall be on a form furnished by, and with a surety satisfactory to Owner. The premium for such bond shall be paid by the Contractor.

Section 5. **Prosecution of Work.** Owner is not responsible for the means, methods and procedures in the performance of the Work.

Section 6. **Insurance.** (a) Contractor shall provide and maintain Workers' Compensation and Employer's Liability Insurance for the protection of its employees, as required by law of an employer. In addition, the Contractor shall provide and maintain in full force and effect during the term of this Contract Commercial General Liability and Automobile Liability Insurance with a company satisfactory to Owner, protecting the Contractor and Owner against liability from damages because of injuries, including death, suffered by persons, including employees of the Contractor, and liability for damages to property, arising from and growing out of the Contractor's operations in connection with the Work. Owner shall be named as an additional insured on all policies of insurance required under this Contract, except Workers' Compensation Insurance, in which case Contractor and its insurer shall wave all rights of subrogation against Owner.

(b) For Commercial General Liability and Automobile Liability Insurance covering property damage, personal injuries or death shall be in the sum of not less than \$1,000,000

per occurrence. The Commercial General Liability Insurance must include completed operations coverage, and must include contractual liability coverage, including any indemnities contained herein. Written proof satisfactory to Owner of compliance with the requirements of this section shall be furnished to Owner before any Work is performed under this Contract. Such proof of insurance shall provide for 30 days written notice to Owner prior to the cancellation of any insurance referred to therein.

Section 7. Indemnification, Compliance with Laws and Warranties. Contractor shall (a) indemnify, defend and save Owner harmless from any and all claims, suits or liability for damages to property, injuries to persons, including death, and from any claims, suits or liability on account of any act or omission of the Contractor, its officers, agents, employees or subcontractors; (b) indemnify, defend and hold Owner and its employees, officers, directors, and agents harmless from any and all liability, losses, costs, expenses and fees arising out of claims or law suits brought by Contractor, its employees, subcontractors or subcontractor's employees for bodily injuries sustained while performing services hereunder, except to the extent caused by the negligence or willful misconduct of Owner or any third party; (c) indemnify Owner against, and save them harmless from, any and all loss, damage, costs, expenses and attorneys' fees suffered or incurred on account of any breach of the aforesaid obligations and covenants, and any other provision or covenant of this Contract; (d) pay for all materials furnished and work and labor performed under this Contract, and to satisfy Owner whenever demand is made, and to indemnify Owner and save them and the premises harmless from any and all claims, suits, or liens therefor by others than the Contractor; (e) obtain and pay for all permits, licenses and official inspections made necessary by the Work, and to comply with all Federal, State and Local laws, ordinances and regulations bearing on the Work and the conduct thereof; (f) indemnify, defend and save Owner harmless from any and all claims, suits, liability, expense or damage for any alleged or actual infringement or violation of any patent or patent right, arising in connection with this Contract and anything done thereunder; (g) warrant and guarantee the Work covered by this Contract and agrees to make good, at Contractor's own expense, any defect in materials or workmanship which may occur or develop. In addition to such warranties and guarantees, Contractor agrees to repair or replace defective work at its sole cost and expense within a one-year period after the Work is completed and accepted by Owner. This one year period shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose; and (h) in addition to the aforementioned general warranties and guarantees, Contractor agrees to obtain manufacturers warranties in accordance with specifications for the Work under this Contract.

Section 8. Lien and Claims. Contractor shall, as and when requested, furnish evidence satisfactory to Owner that claims for labor and material furnished by the Contractor in the connection with performance of this Contract have been paid. Such evidence shall be furnished in such form and manner as requested by Owner, and all statements relative thereto shall, if called for by Owner, be made by sworn affidavit. Contractor shall furnish to Owner releases of bond rights and lien rights by persons who have furnished labor, material or other things in the performance of this Contract, it being agreed that payment of money otherwise due Contractor need not be made by Owner until such releases are furnished. Contractor shall deliver the Work free from all claims, encumbrances or liens.

Section 9. Possession during Performance of Work. Owner shall be occupying and/or using the facility where the Work is to be performed. Owner shall allow Contractor

reasonable access to perform the Work required hereunder. Such use and/or occupation by Owner shall not relieve the Contractor of any guarantee or warranty of said Work nor of any obligation to make good at Contractor's own expense any defect in materials and/or workmanship which may occur or develop.

Section 10. **Independent Contractor.** Contractor specifically agrees that the Work performed hereunder is being performed as an independent contractor.

Section 11. **Safety.** Contractor shall be solely responsible for safety and shall take all reasonable safety precautions pertaining to the Work and the conduct thereof. Without limiting the generality of the foregoing, Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders issued by a public authority, whether federal, state, local or otherwise, including, but not limited to, the Federal Occupational Safety and Health Act and safety measures called for by Owner.

Section 12. **Protection of Work.** Contractor specifically agrees to be responsible for the protection of the Work until final completion and acceptance thereof by Owner and that Contractor will make good or replace, at no expense to Owner, any damage to his Work which occurs prior to said final acceptance.

Section 13. **Disputes.** (a) This Contract is to be governed by the law of the State of Texas. All disputes shall be first be mediated. If any litigation is commenced between the parties concerning this Agreement or their respective rights, duties and obligations hereunder, the prevailing party in such litigation shall be entitled to reasonable attorney's fees, court costs and litigation expenses.

(b) The Contractor shall proceed diligently with the Work, pending final determination of any claims made related to this Contract.

Section 14. **Sovereign Immunity.** Any provision of the Contract that seeks to waive the City's immunity from suit and/or immunity from liability is void unless agreed to by specific acknowledgement of the provision within the contract.

Section 15. **Taxes.** Contractor shall pay all taxes, licenses, and fees of every nature which may be imposed or charged by any governmental authority upon the labor, material, or other things used in the performance of the Work or upon the transaction between Owner and Contractor. The City is not liable to Vendor for any federal, state, or local taxes for which the City is not liable by law, including state and local sales and use taxes (Section 151.309 and Title 3, Texas Tax Code) and federal excise tax (Subtitle D of the Internal Revenue Code). Accordingly, those taxes may not be added to any item. Texas limited sales tax exemption certificates will be furnished upon request.

Section 16. **Assignment/Subcontract.** Contractor shall not, in whole or in part, assign or subcontract this Contract or the proceeds thereof without the prior written consent of Owner.

Section 17. **Equal Employment and Nondiscrimination.** In connection with the Work under this Contract, Contractor agrees to comply with the applicable provisions of federal and state Equal Employment Opportunity, and other employment statutes and regulations.

IN WITNESS WHEREOF, the parties hereto have executed this Contract on the date provided above by their proper officers or duly authorized agents.

By _____
CITY OF PFLUGERVILLE, TEXAS

By _____
HDR ENGINEERING, INC.

Its _____

Its _____

EXHIBIT “A”

The “Work” is described as:

Exhibit A



Memo

Date: Monday, July 14, 2014

Project: High Service Pump Station Preliminary Cathodic Protection Plan

To: Tom Word, City of Pflugerville

From: Jeff Giddings, P.E. and Marc Wegner, P.E.

Subject: Response to FNI/RCC Peer Review Comments

INTRODUCTION

On June 17, 2014, Freese and Nichols, Inc (FNI) and Russell Corrosion Consultants, Inc (RCC) conducted a peer review of HDR's cathodic protection plan and provided three basic comments in their memo dated June 20, 2014 summarized here:

1. Reduce the required structure polarization shift to 50 millivolts from the open circuit potential to the "instant off" potentials rather than NACE standard of 100 millivolts by limiting the number of anodes connected.
2. Install an additional structure wire so potentials can be measured without using a current carrying conductor.
3. Additional measurements and adjustments should be made after activation.

RESPONSES

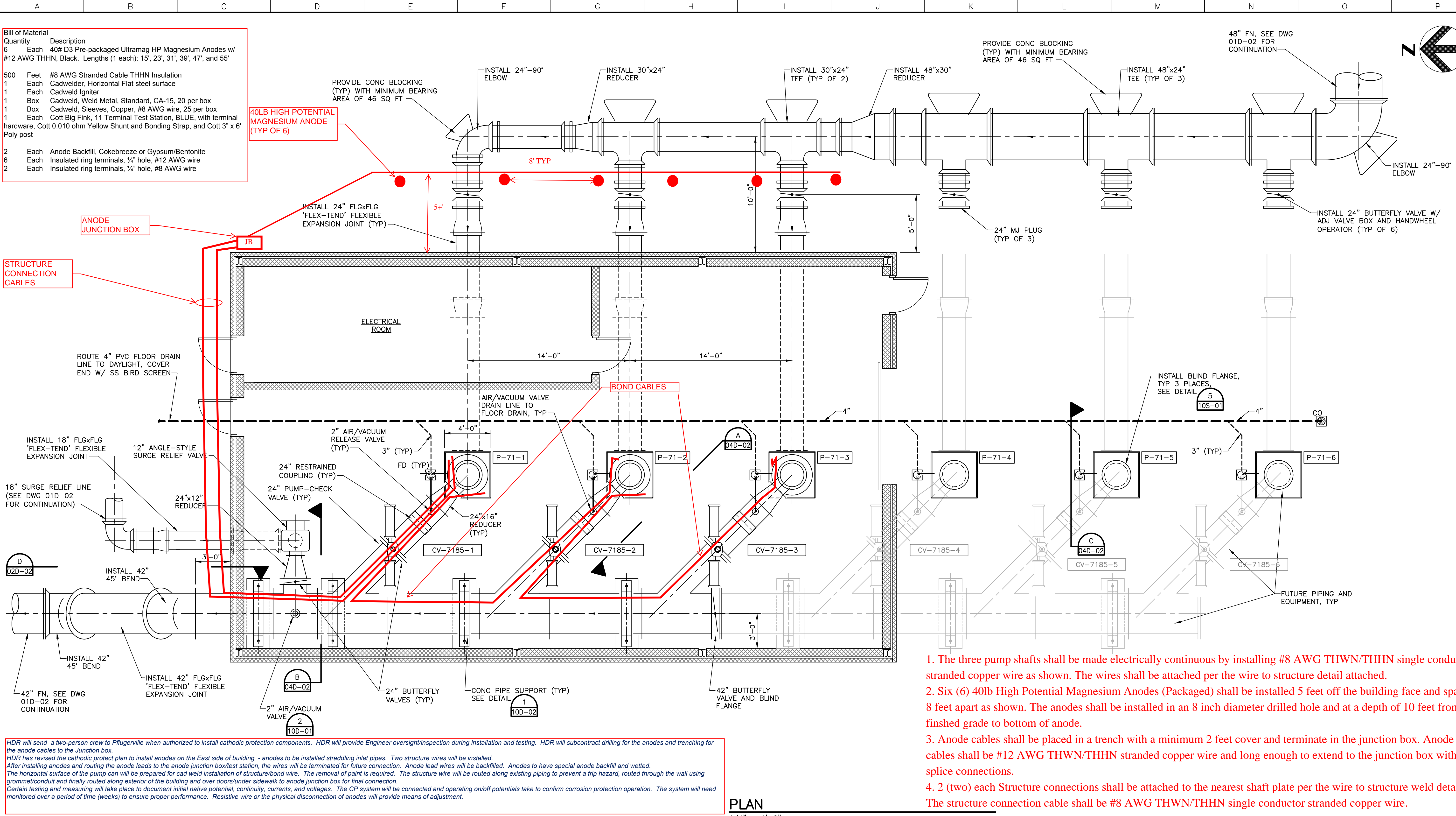
Item #1 and #3 - HDR will follow the recommendations contained within the memo to activate, monitor, and adjust the system to meet the recommended criteria, both initially and for its undefined, temporary future. HDR plans to install all anodes and then limit actual current by means of a resistor or ultimately disconnecting an anode if required. For this temporary condition, and since no additional isolation is being installed, the CP design capacity is large enough to account for some unintended additional structure, like pipe and ground mat. However, unknown additional structure current requirement may exist that may prevent full NACE criteria (100 mV shift), until the system is activated and allowed to polarize this limited 50 mV shall be targeted.

Item #2, HDR has better reflected in it plans an additional structure wire to assist in measuring potentials on a non-current carrying conductor.



BILL OF MATERIAL

Quantity	Unit	Description
6	Each	40# D3 Pre-packaged Ultramag HP Magnesium Anodes w/#12 AWG THHN, Black. Lengths (1 each): 15', 23', 31', 39', 47', and 55'
500	Feet	#8 AWG Stranded Cable THHN Insulation
1	Each	Cadwelder, Horizontal Flat steel surface
1	Each	Cadweld Igniter
1	Box	Cadweld, Weld Metal, Standard, CA-15, 20 per box
1	Box	Cadweld, Sleeves, Copper, #8 AWG wire, 25 per box
1	Each	Cott Big Fink, 11 Terminal Test Station, BLUE, with terminal hardware, Cott 0.010 ohm Yellow Shunt and Bonding Strap, and Cott 3" x 6' Poly post
2	Each	Anode Backfill, Cokebreeze or Gypsum/Bentonite
6	Each	Insulated ring terminals, 1/4" hole, #12 AWG wire
2	Each	Insulated ring terminals, 1/4" hole, #8 AWG wire



Quantity	Description
6	Each 40# D3 Pre-packaged Ultramag HP Magnesium Anodes w/ #12 AWG THHN, Black. Lengths (1 each): 15', 23', 31', 39', 47', and 55'
500	Feet #8 AWG Stranded Cable THHN Insulation
1	Each Cadwelder, Horizontal Flat steel surface
1	Each Cadweld Igniter
1	Box Cadweld, Weld Metal, Standard, CA-15, 20 per box
1	Box Cadweld, Sleeves, Copper, #8 AWG wire, 25 per box
1	Each Cott Big Fink, 11 Terminal Test Station, BLUE, with terminal hardware, Cott 0.010 ohm Yellow Shunt and Bonding Strap, and Cott 3" x 6' Poly post
2	Each Anode Backfill, Cokebreeze or Gypsum/Bentonite
6	Each Insulated ring terminals, 1/4" hole, #12 AWG wire
2	Each Insulated ring terminals, 1/2" hole, #8 AWG wire

ANODE JUNCTION BOX

STRUCTURE CONNECTION CABLES

ROUTE 4" PVC FLOOR DRAIN LINE TO DAYLIGHT, COVER END W/ SS BIRD SCREEN

INSTALL 18" FLGxFLG 'FLEX-TEND' FLEXIBLE EXPANSION JOINT

12" ANGLE-STYLE SURGE RELIEF VALVE

18" SURGE RELIEF LINE (SEE DWG 01D-02 FOR CONTINUATION)

INSTALL 42" 45' BEND

42" FN, SEE DWG 01D-02 FOR CONTINUATION

INSTALL 42" FLGxFLG 'FLEX-TEND' FLEXIBLE EXPANSION JOINT

24"x12" REDUCER

24" RESTRAINED COUPLING (TYP)

24" PUMP-CHECK VALVE (TYP)

2" AIR/VACUUM RELEASE VALVE (TYP)

24" FLGxFLG 'FLEX-TEND' FLEXIBLE EXPANSION JOINT (TYP)

2" AIR/VACUUM RELEASE VALVE (TYP)

3" (TYP)

FD (TYP)

4'-0"

24"x16" REDUCER (TYP)

CV-7185-1

CV-7185-2

CV-7185-3

CV-7185-4

CV-7185-5

CV-7185-6

40LB HIGH POTENTIAL MAGNESIUM ANODE (TYP OF 6)

INSTALL 24" FLGxFLG 'FLEX-TEND' FLEXIBLE EXPANSION JOINT (TYP)

5'-0"

14'-0"

14'-0"

4'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

3'-0"

PROVIDE CONC BLOCKING (TYP) WITH MINIMUM BEARING AREA OF 46 SQ FT

INSTALL 24"-90° ELBOW

INSTALL 30"x24" REDUCER

INSTALL 30"x24" TEE (TYP OF 2)

INSTALL 48"x30" REDUCER

INSTALL 48"x24" TEE (TYP OF 3)

24" MJ PLUG (TYP OF 3)

INSTALL 24" BUTTERFLY VALVE W/ ADJ VALVE BOX AND HANDWHEEL OPERATOR (TYP OF 6)

INSTALL 24"-90° ELBOW

48" FN, SEE DWG 01D-02 FOR CONTINUATION

PROVIDE CONC BLOCKING (TYP) WITH MINIMUM BEARING AREA OF 46 SQ FT

INSTALL 24" FLGxFLG 'FLEX-TEND' FLEXIBLE EXPANSION JOINT (TYP)

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INSTALL 24" FLGxFLG 'FLEX-TEND' FLEXIBLE EXPANSION JOINT (TYP)

INSTALL 24" FLGxFLG 'FLEX-TEND' FLEXIBLE EXPANSION JOINT (TYP)

BOND CABLES

CONC PIPE SUPPORT (TYP) SEE DETAIL

42" BUTTERFLY VALVE AND BLIND FLANGE

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AS-RECORDED

THIS DOCUMENT IS FOR THE OWNER'S USE AS A RECORD SET OF THE CONSTRUCTED PROJECT. IT HAS BEEN MODIFIED FROM THE ORIGINAL CONSTRUCTION DOCUMENTS TO INCLUDE REVISIONS AND CONSTRUCTION RELATED CHANGES AS RECORDED BY THE GENERAL CONTRACTOR:
PEPPER LAWSON CONSTRUCTION, INC.
4555 KATY HOCKLEY CUT OFF ROAD
HOUSTON, TX 77218
PHONE: (713) 521-0174.
THIS DOCUMENT IS NOT TO BE USED OR ISSUED FOR CONSTRUCTION OR ANY OTHER PURPOSE WITHOUT PRIOR CONSULTATION AND APPROVAL BY HDR ENGINEERING, INC. AND THE ENGINEER RESPONSIBLE FOR SEALING THIS DOCUMENT.

THIS DOCUMENT IS RELEASED FOR THE PURPOSES OF REVIEW UNDER THE AUTHORITY OF JEFFREY GIDDINGS, P.E. NO. 111985. IT IS NOT TO BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSE.

ELECTRONIC SEAL AND SIGNATURE HAVE BEEN REMOVED. THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

HDR
HDR Engineering, Inc.

Project Manager
R. K. NOACK
Designed
J. J. CHRISTENSEN
Designed
Checked
Drawn
S. R. FRANKLIN

The City of Pflugerville Texas

COLORADO RIVER WATER SUPPLY PROJECT

CONTRACT NO. 5
WATER TREATMENT PLANT

HIGH SERVICE PUMP STATION PROCESS

PLAN

Date	JANUARY 2004	Project No.	09669-1958	Drawing No.	04D-01	Issue	Z
Scale	AS NOTED	File Name	04D-01.DWG				



Magnesium™ Soil Anodes



High Potential Magnesium

SuperMag High Potential Magnesium Anodes from Galvotec Alloys, Inc. offers typical high working/driving potentials of -1.70 volts or better vs. copper/copper sulfate reference electrode, providing more current output per pound than AZ-63 alloy magnesium anodes. This alloy is the best choice for engineered systems in high resistivity soils.



Laboratory- Testing

Our modern laboratory is equipped with the best state of the art equipment available. Our technicians and inspectors are well trained and experienced. A Chemical Analysis is provided for every heat. Each heat is analyzed throughout production to insure consistency. Electrochemical testing is performed routinely on randomly selected heats as a quality assurance procedure, utilizing the ASTM-G-97 test method.



Production - Quality Control

Our production facilities offer the best possible working environment available in the industry. Our personnel are experienced in all phases of the foundry operation. Quality Control in our foundry begins on the foundry floor, where the first line of inspection is the casting and molding crew, our lab technicians, inspectors and managers completes the quality team. Our quality control staff carefully monitors raw material, core materials, packaging and all aspects of production. Laboratory and field investigations prove that Galvotec SuperMag anodes perform consistently.

Packaging- Availability

Anodes are supplied in backfill to meet the customers' specifications. The typical backfill material consists of 75% gypsum, 20% bentonite and 5% sodium sulfate. Standard sizes and shapes are warehoused. Anodes are available packaged and unpackaged with or without leads as per customers' specifications.



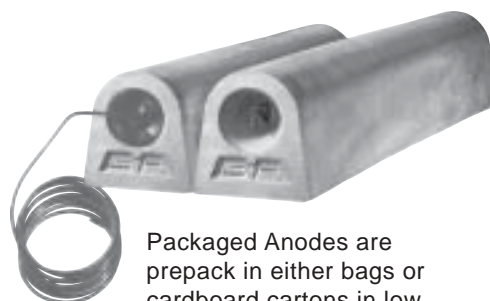
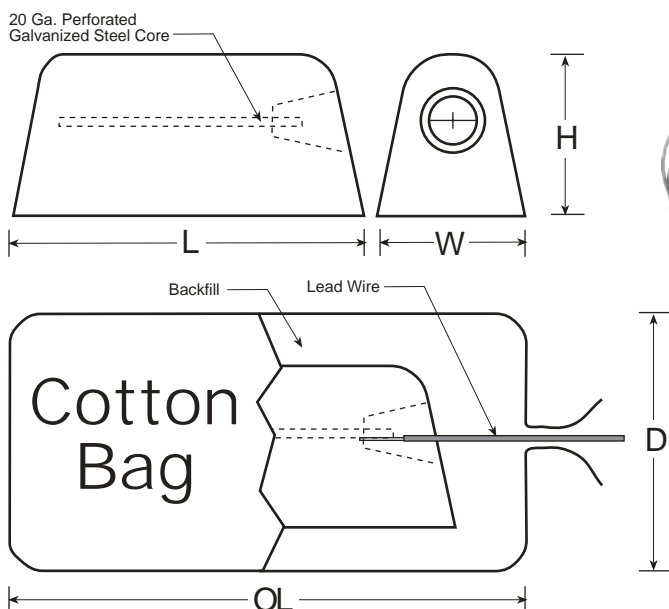
Magnesium SuperMAG™ High Potential Anodes



Galvotec Alloys produces High Potential anodes under our trademark SuperMAG™. Chemical analysis and potential tests are performed on every heat.

PRODUCT NO.	MODEL NO.	Weight				Anode Dimensions									
		BARE		PKDG.		Width (W)		Height (H)		Length (L)		Diameter (D)		Overall Length (OL)	
		lbs	kg	lbs	kg	in	mm	in	mm	in	mm	in	mm	in	mm
GA-MG-3 HP	3D3	3	1.4	8	3.6	3.50	89	3.75	95	5.00	127	6.0	152	10	254
GA-MG-5 HP	5D3	5	2.3	17	7.7	3.50	89	3.75	95	8.50	216	6.0	152	12	305
GA-MG-9 HP	9D3	9	4.1	27	12.2	3.50	89	3.75	95	14.00	356	6.0	152	17	432
GA-MG-17 HP	17D3	17	7.7	45	20.4	3.50	89	3.75	95	25.75	654	7.5	191	34	864
GA-MG-20 HP	20D2	20	9.1	70	31.8	2.75	70	3.00	76	59.75	1518	5.0	127	66	1676
GA-MG-32 HP	32D5	32	14.5	70	31.8	5.50	140	5.00	127	20.50	521	8.0	203	28	711
GA-MG-32 HP	32D3	32	14.5	91	41.3	3.50	89	3.75	95	45.25	1140	6.5	165	52	1346
GA-MG-40 HP	40D3	40	18.1	96	43.5	3.50	89	3.75	95	59.75	1518	6.5	165	66	1676
GA-MG-48 HP	48D3	48	21.8	100	45.4	3.50	140	3.75	146	51.00	1295	8.0	203	38	965
GA-MG-60 HP	4x4x60	60	27.2	125	56.7	4.00	102	4.00	102	60.00	1524	7.0	178	64	1626

Other shapes, sizes and weights available on request.



Packaged Anodes are prepack in either bags or cardboard cartons in low resistivity, quick wetting, prepared backfill consisting of 75% hydrated gypsum, 20% bentonite, and 5% sodium sulphate.

Connecting Wire: Standard 10 feet of solid or stranded #12 AWG Copper Lead Wire/THWN/THNN.



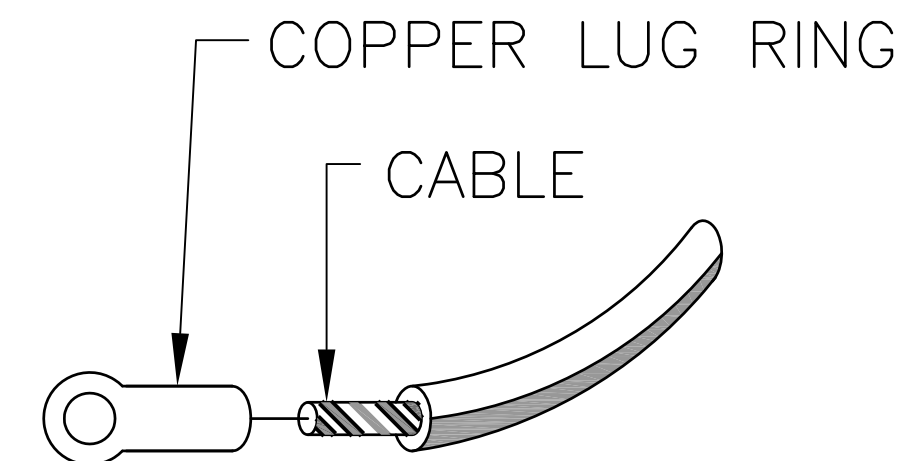
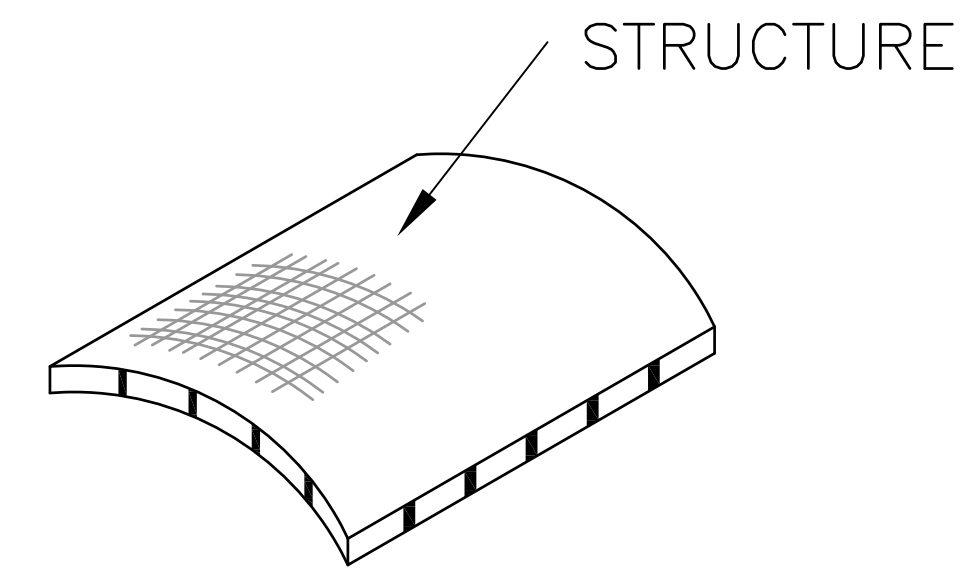
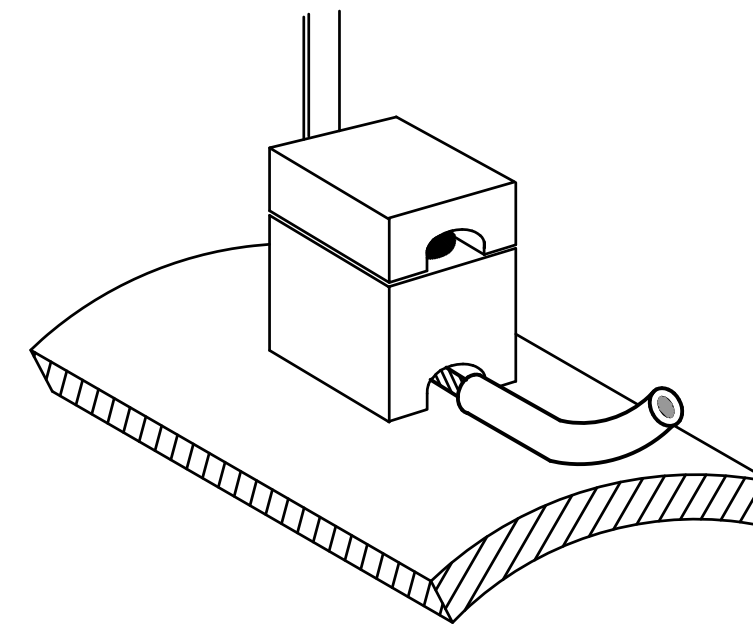
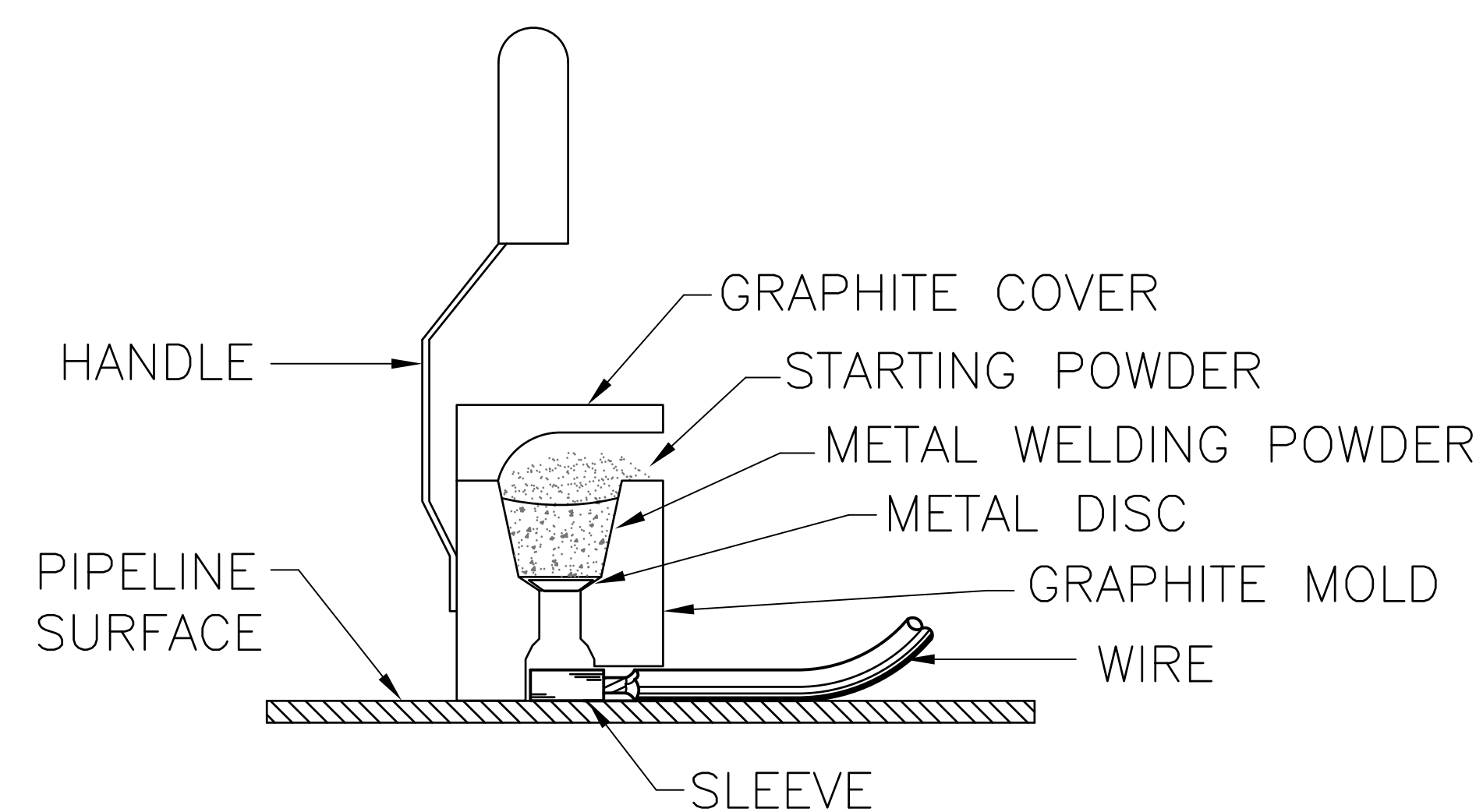
Typical Electrochemical Properties

Amps/Hrs./Lb.	500-580
Efficiency	50-58%
Closed Circuit Potential	-1.50 to -1.75v
Open Circuit Potential	-1.70 to -1.78v

Alloy Compositions	
Element	%
Aluminum (Max.)	0.01
Manganese (Min)	0.50 - 1.30
Iron (Max.)	0.03
Nickel (Max.)	0.001
Copper (Max.)	0.02
Other (Max.)	0.30
Magnesium	Balance

For the very best in Magnesium Anodes – specify SuperMAG™.

NOTE: While statements contained herein are believed to be accurate, they are offered as suggestions only and no warranty or representation is intended. Galvotec Alloys products are sold subject to the terms and conditions appearing on our printed order acknowledgment.



1. DEGREASE AND CLEAN STRUCTURE TO BARE, BRIGHT METAL WITH MECHANICAL DEVICES.
2. STRIP WIRE INSULATION AND ATTACH FROM WIRE AND ATTACH A BAC M1 COMPRESSION TERMINAL OR APPROVED EQUAL.
3. LOAD THE BRAZING GUN WITH A DIRECT BRAZING PIN AND FERRULE. USE A THREADED TYPE CONNECTION FOR ABOVE-GROUND USE ONLY.

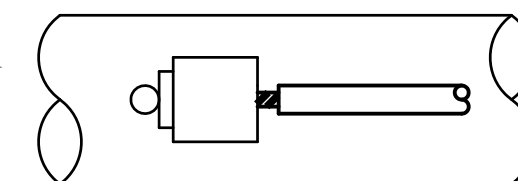
STEP 1. GRIND STRUCTURE CONNECTION AREA (3"x3") TO BARE SHINY METAL AND CLEAN.



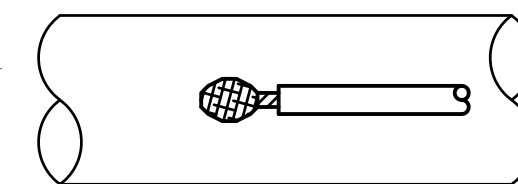
STEP 2. STRIP INSULATION FROM WIRE. ATTACH SLEEVE



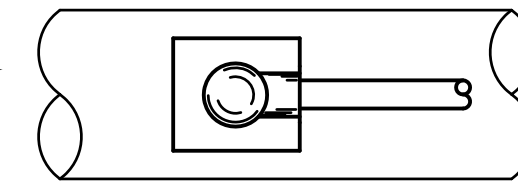
STEP 3. HOLD MOLD FIRMLY WITH OPENING AWAY OPERATOR & IGNITE WITH FLINT GUN.



STEP 4. REMOVE SLAG FROM CONNECTION & PEEN WELD FOR SOUNDNESS.

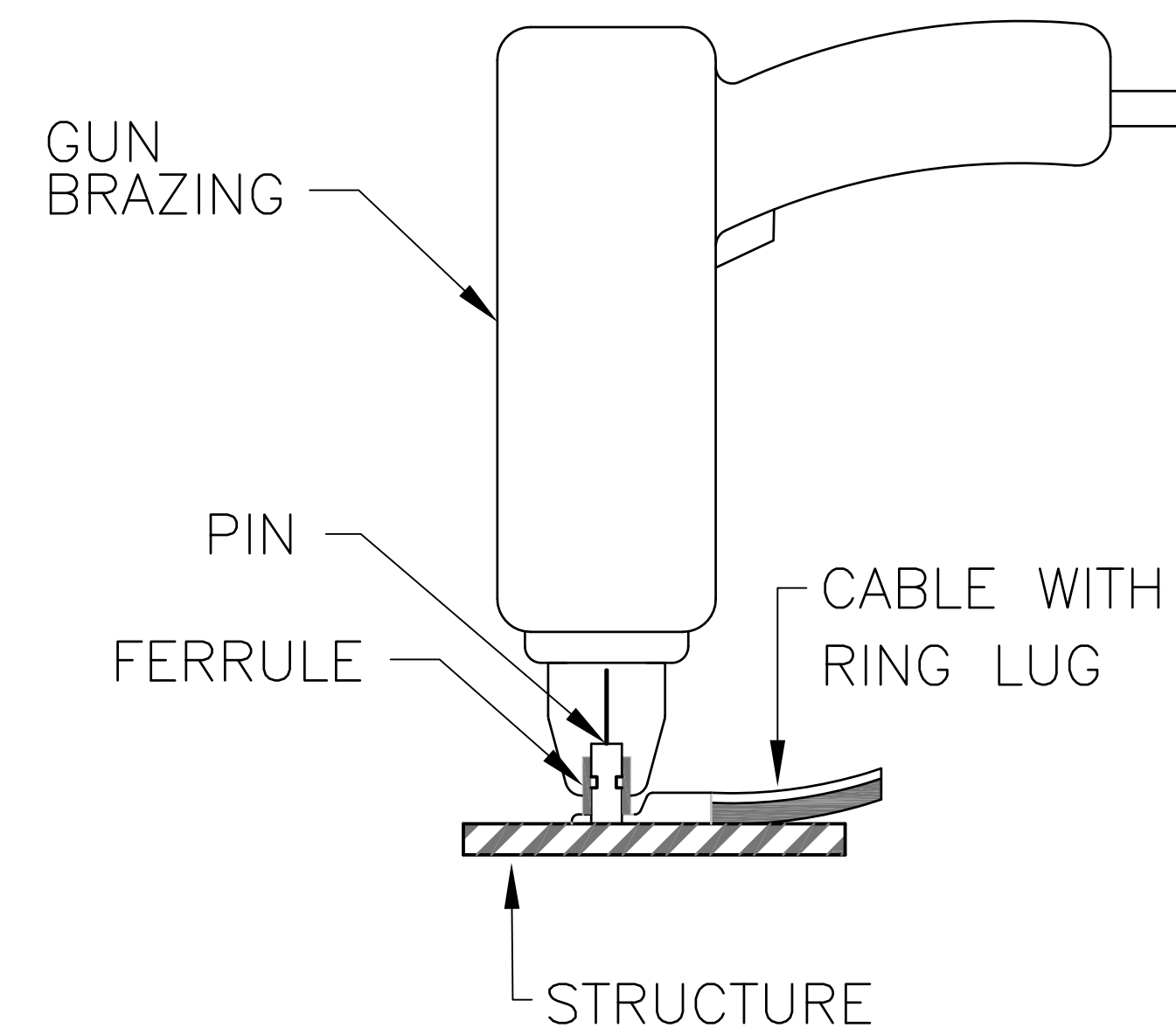


STEP 5. COVER CONNECTION AND EXPOSED STRUCTURE SURFACE WITH A WELD CAP AND BITUMINOUS COATING COMPOUND.



NOTE:

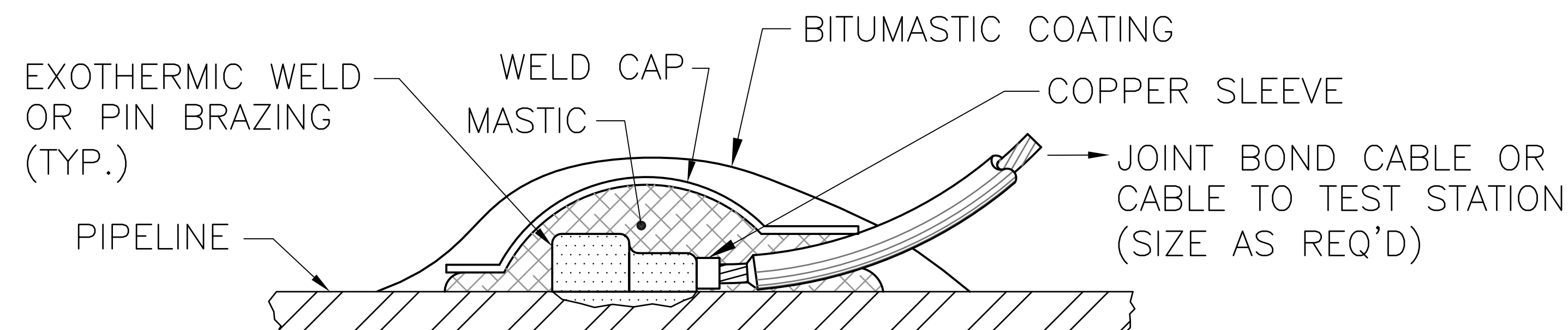
PROCEDURE SHOWN ABOVE IS TO BE USED AS A GENERAL GUIDE ONLY. CONSULT MANUFACTURER'S LITERATURE FOR SPECIFIC INSTALLATION INSTRUCTIONS. ALL WELDS SHALL BE A MINIMUM OF 6" APART.



PIN BRAZING

4. BRAZE THE CABLE TO THE PIPE. EXTRA MATERIAL REQUIRED FOR DI OR CI PIPE.
5. TEST BRAZE BY BREAKING OFF THE SHANK OF THE PLAIN PIN WITH A HAMMER.
6. COVER CONNECTION WITH MASTIC FILLED WELD CAP AND BITUMASTIC COATING 80% SOLIDS BY VOLUME OVER WELD CAP AND ALL EXPOSED METAL.
7. ALL WELDS SHALL BE A MINIMUM OF 6" APART.
8. ALLOW WELD COATING TO CURE PER MANUF. RECOM. BEFORE BURIAL.

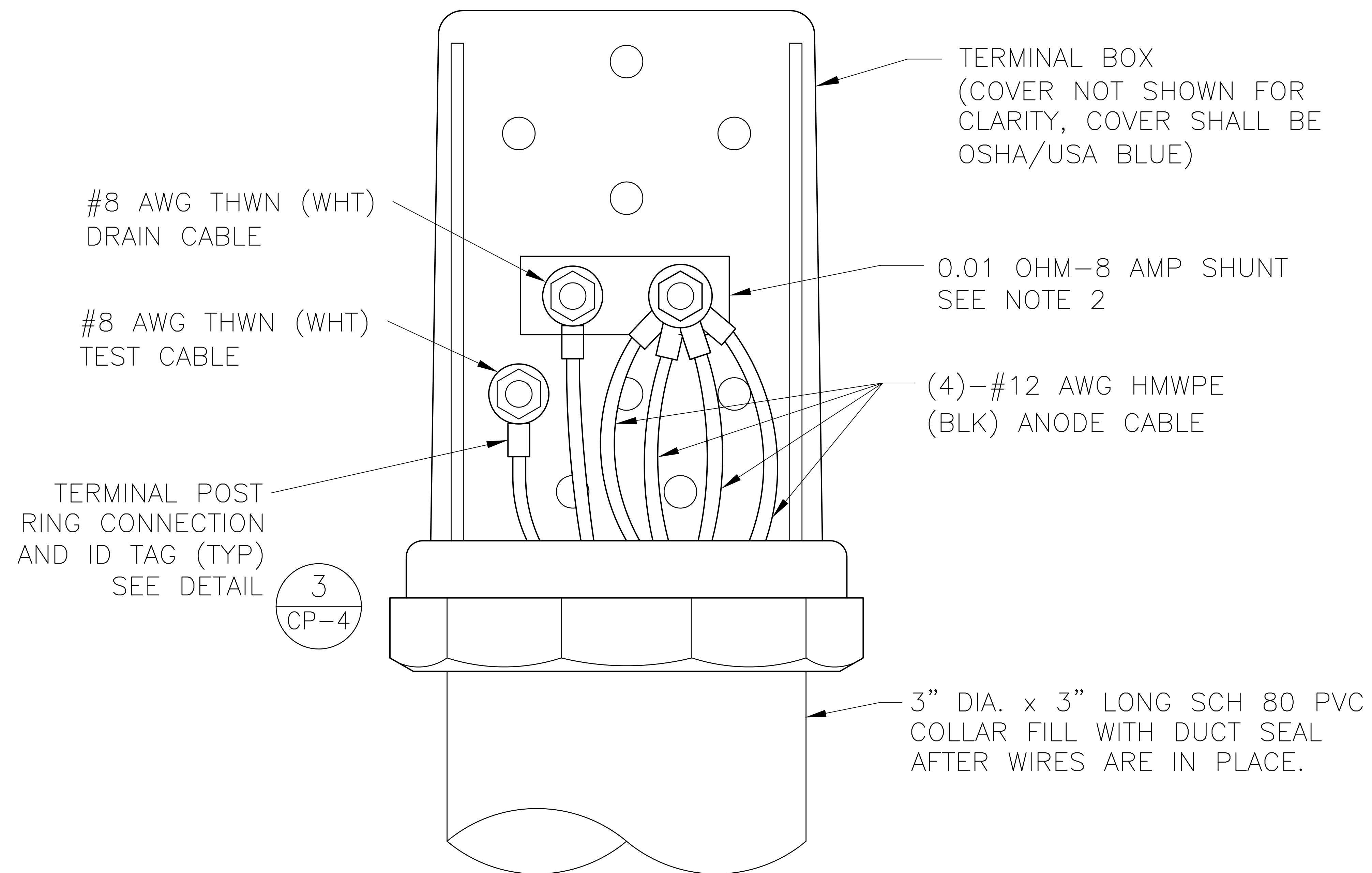
EXOTHERMIC WELD



WIRING-TO-STRUCTURE WELD DETAIL

SCALE: NTS

XX
XXX



NOTE:

1. USE THE APPROPRIATE TERMINAL BOARD AT EACH TEST STATION AS SPECIFIED IN THE PLAN SHEETS.
2. DO NOT CONNECT SHUNT BETWEEN PIPE AND ANODES DURING CONSTRUCTION. SHUNT TO BE CONNECTED AFTER THE FREE-CORRODING POTENTIALS HAVE BEEN RECORDED BY THE CONTRACTOR'S CORROSION ENGINEER DURING FIELD TESTING.

TERMINAL BOARD

SCALE: NTS

